



SEQUENCE LISTING

<110> Juha Punnonen, et al.

<120> NOVEL CO-STIMULATORY MOLECULES

<130> 0169.310US

<140> 09/888,324

<141> 2001-06-22

<150> 60/213,946

<151> 2000-06-23

<150> 60/241,245

<151> 2000-10-17

<160> 312

<170> PatentIn Ver. 2.1

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<211> 891

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 1

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tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
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<211> 900

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 2

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gtgaaagaaa tggcagcact gtctgtgat tacaacattt ctatcgatga actggcgaga 180
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<210> 3

<211> 900

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 3

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<210> 4

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 4

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accaaaagag tgaaagaaac agtaatgcta tctgtgatt acagcacatc cactgaagaa 180
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ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
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cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttgga 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
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actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
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tctcgggct ga 912

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<210> 5

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 5

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acaaaagag tgaaagaaac agtaatgcta tctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg tttgaaagg ggcttataaa ctggagcacc tggttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttgga 540
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cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtc tttggtgtc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
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tctcgggct ga 912

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<210> 6

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 6

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cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaagag tgaaagaaac agtaatgcta tctgtgatt acagcacatc cactgaagaa 180

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ctgacaagcc ttcggatcta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
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ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
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agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttgga 540
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actgcggtag ttctctaccg cccggcctgc agacatgttg cgaggtggaa aagaacaaga 840
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tcctcgggct ga 912

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<210> 7

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 7

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accaaagagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
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actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
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tcctcgggct ga 912

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<210> 8

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 8

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accaaagagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240

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ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
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atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctctg ctggttggaa 540
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actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
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tcctcgggct ga 912

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<210> 9

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 9

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acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
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tcctcgggct ga 912

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<210> 10

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 10

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acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300

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ccccgtattg tgatcctggc tctgcgcctg tctggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
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tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtg tttgggtgctc 780
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912

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<210> 11

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 11

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accaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
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agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
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tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
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tcctcgggat ga
912

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<210> 12

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 12

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cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tctactgacat gaacgataac 300
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cagaagcctg	ttttgaaagg	ggcttataaa	ctggagcacc	tggcttccgt	gagggttaatg	420
atcagagctg	acttccctgt	ccctagcata	actgacattg	gacatcccgc	ccctaattgtg	480
aaaaggataa	gatgctccgc	ctctggaggt	tttccagagc	ctcgccctgc	ctggatggaa	540
gatggagaag	aactaaacgc	cgtcaacacg	acggttgacc	aggatttga	cacggagctc	600
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cctcccattg	atcagcttcc	attctgggtc	attatcccag	taagtgggtc	tttgggtgtc	780
actgcggtag	ttctctactg	cctggcctgc	agacatgttg	cgaggtggaa	aagaacaaga	840
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<210> 13

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 13

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acaaaaagag	tgaaagaaac	agtaatgcta	tcctgtgatt	acaacacatc	caactgaagaa	180
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ggaaaagtgc	aggtgtggcc	tgagtacaag	aaccgcacca	tactgacat	gaacgataac	300
ccccgtattg	tgatcctggc	tctgcgcctg	tcggacagtg	gcacctacac	ctgtgttatt	360
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aatggagaag	aattaaatgc	taccaacaca	acagtttccc	aagatccctg	aactgagctc	600
tacatgatta	gcagtgaact	ggatttcaat	gtgacaaata	accacagcat	cgtgtgtctc	660
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cctcccattg	atcagcttcc	attctgggtc	attatcccag	taagtgggtc	tttgggtgtc	780
actgcggtag	ttctctactg	cctggcctgc	agacatgttg	cgaggtggaa	aagaacaaga	840
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<210> 14

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 14

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cagctcttgg	tgctcactgg	tcttttttac	ttctgttcag	gcatcacccc	aaagagtgtg	120
acaaaaagag	tgaaagaaac	agtaatgcta	tcctgtgatt	acagcacatc	caactgaggaa	180
ctgacaagcc	ttcggatcta	ttggcaaaag	gatagtaaaa	tggtgctggc	catcctgcct	240
ggaaaagtgc	aggtgtggcc	tgagtacaag	aaccgcacca	tactgacat	gaacgataac	300
ccccgtattg	tgatcctggc	tctgcgcctg	tcggacagtg	gcacctacac	ctgtgttatt	360
cagaagcctg	ttttgaaagg	ggcttataaa	ctggagcacc	tgacttccgt	gagggttaatg	420

```

atcagagctg acttcctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctgggttgaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtc tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga
912

```

<210> 15

<211> 909

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 15

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atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acccaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacgcata cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgctgtggt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc tagcataact gacattggac atcccgcctc taatgtgaaa 480
aggataagat gctccgcctc tggaggtttt ccagagcctc gcctcgctctg gatggaagat 540
ggagaagaac taaacgccgt caacacgacg gttgaccagg atttgacac ggagctctac 600
agcgtcagca gtgaactgga tttcaatgtg acaaataacc acagcatcgt gtgtctctac 660
aaatacgggg agctgtcggg gtcacagatc ttcccttgga gcaaaccctc gcaggagcct 720
cccattgata agcttccatt ctgggtcatt atcccagtaa gtggtgcttt ggtgtcact 780
gcggtagttc tctactgcct ggctgcaga catgttgcca ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctga
909

```

<210> 16

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 16

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atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acccaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacata cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttcctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480

```

```

agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttgga 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

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<210> 17

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 17

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atgggtcaca caatgaagtg gggatcacta ccaccaagc gccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcaccac aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgactagcc ttcggtacta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tgggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccagagc ctgcctcgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttgga cacggagctc 600
tacagcgtca gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

```

<210> 18

<211> 903

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 18

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atggggcaca cgctgaggcc gggaaactcca ctgcccaggt gtctacacct caagctctgc 60
ctgctcttgg cgctggcggg tctccacttc tcttcaggta tcagccaggt caccaagtgc 120
gtgaaagaaa tggcggcact gtcctgtgat tacaacattt ctatcgatga actggcgaga 180
atgcgcatat actggcagaa ggaccaacag atggtgctga gcatcatctc tgggcaagtg 240
gaagtgtggc ctgagtacaa gaaccgcacc atcaactgaca tgaacgataa cccccgtatt 300
gtgatcctgg ctctgcgcct gtcggacagt ggcacctaca cctgtgttat tcagaagcct 360
gttttgaaag gggttataaa actggagcac ctggcttccg tgaggttaat gatcagagct 420
gacttccctg tcctaccat aaatgatctt ggaaatccat ctctaataat cagaaggcta 480
atttgcctaa cctctggagg ttttccaagg cccacctct actggttgga aaatggagaa 540

```

gaattaaatg	ctaccaaac	aacagtttcc	caagatcctg	gaactgagct	ctacatgatt	600
agcagtgaac	tggatttcaa	tgtgacaaat	aaccacagca	tcgtgtgtct	catcaaatac	660
ggggagctgt	cgggtgcaca	gatcttccct	tggagcaaac	ccaagcagga	gcctccatt	720
gatcagcttc	cattctgggt	cattatccca	gtaagtgggtg	ctttgggtgct	cactgcggtg	780
gttctctact	gcctggcctg	cagacatggt	gcgaggtgga	aaagaacaag	aaggaatgaa	840
gagacagtgg	gaactgaaag	gctgtccctt	atctacttag	gctctgcgca	atcctcgggc	900
tga						903

<210> 19  
 <211> 912  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

<400> 19						
atgggtcaca	caatgaagtg	gggatcacta	ccacccaagc	gcccattgcct	ctggctctct	60
cagctcttgg	tgtcactgg	tcttttttac	ttctgttcag	gcatcacccc	aaagagtgtg	120
acaaaaagag	tgaaagaaac	agtaatgcta	tcctgtgatt	acaacacatc	cactgaagaa	180
ctgacaagcc	ttcggatcta	ttggcaaaag	gatagtaaaa	tggtgctggc	catcctgcct	240
ggaaaagtgc	aggtgtggcc	tgagtacaag	aaccgcacca	tactgacat	gaacgataac	300
ccccgtattg	tgatcctggc	tctgcgcccg	tcggacagtg	gcacctacac	ctgtgttatt	360
cagaagcctg	ttttgaaagg	ggcttataaa	ctggagcacc	tggtctccgt	gagggttaatg	420
atcagagctg	acttccctgt	ccctaccata	aatgatcttg	gaaatccatc	tcctaataatc	480
agaaggctaa	tttgctcaac	ctctggagggt	tttccaaggc	cccacctcta	ctggttggaa	540
aatggagaag	aattaaatgc	taccaacaca	acagtttccc	aagatcctgg	aactgagctc	600
tacatgatta	gcagtgaact	ggattttcaat	gtgacaaata	accacagcat	cgtgtgtctc	660
atcaaatacg	gggagctgtc	ggtgtcacag	atcttccctt	ggagcaaac	caagcaggag	720
cctccattg	atcagcttcc	attctgggtc	attatcccag	taagtgggtg	tttgggtgtc	780
actgcggtag	ttctctactg	cctggcctgc	agacatggtg	cgaggtggaa	aagaacaaga	840
aggaatgaag	agacagtggg	aactgaaagg	ctgtccccta	tctacttagg	ctctgcgcaa	900
tctcgggct	ga					912

<210> 20  
 <211> 912  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

<400> 20						
atgggtcaca	caatgaagtg	gggatcacta	ccacccaagc	gcccattgcct	ctggctctct	60
cagctcttgg	tgtcactgg	tcttttttac	ttctgttcag	gcatcacccc	aaagagtgtg	120
acaaaaagag	tgaaagaaac	agtaatgcta	tcctgtgatt	acaacacatc	cactgaagaa	180
ctgacaagcc	ttcggatcta	ttggcaaaag	gatagtaaaa	tggtgctggc	catcctgcct	240
ggaaaagtgc	aggtgtggcc	tgagtacaag	aaccgcacca	tactgacat	gaacgataac	300
ccccgtattg	tgatcctggc	actgcgcctg	tcggacagtg	gcacctacac	ctgtgttatt	360
cagaagcctg	ttttgaaagg	ggcttataaa	ctggagcacc	tgacttccgt	gagggttaatg	420
atcagagctg	acttccctgt	ccctaccata	aatgatcttg	gaaatccatc	tcctaataatc	480
agaaggctaa	tttgctcaac	ctctggagggt	tttccaaggc	cccacctcta	ctggttggaa	540
aatggagaag	aattaaatgc	taccaacaca	acagtttccc	aagatcctgg	aactgagctc	600

tacatgatta	gcagtgaact	ggatttcaat	gtgacaaata	accacagcat	cgtgtgtctc	660
atcaaatacg	gggagctgtc	ggtgtcacag	atcttccctt	ggagcaaacc	caagcaggag	720
cctcccattg	atcagcttcc	attctgggtc	attatcccag	taagtgggtc	tttgggtgtc	780
gctgcggtag	ttctctactg	cctggcctgc	agacatgttg	cgaggtggaa	aagaacaaga	840
aggaatgaag	agacagtggg	aactgaaagg	ctgtccccta	tctacttagg	ctctgcgcaa	900
tcctcgggct	ga					912

<210> 21

<211> 909

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 21

atgggtcaca	caatgaagtg	gggatcacta	ccacccaagc	gcccattgct	ctggctctct	60
cagctcttgg	tgctcactgg	tcttttttac	ttctgttcag	gcatcaccac	aaagagtgtg	120
accaaagag	tgaaagaaac	agtaatgcta	tcctgtgatt	acagcacatc	cactgaagaa	180
ctgacaagcc	ttcggatcta	ttggcaaaa	gatagtaaaa	tggtgctggc	catcctgcct	240
ggaaaagtgc	aggtgtggcc	tgagtacaaa	aaccgcacct	tccccgacat	cattaacaac	300
ctctccctta	tgatcctggc	actgcgcctg	tcggacaagg	gcacctacac	ctgcgtgggt	360
cagaagaatg	agaacgggtc	tttcagacgg	gagcacctga	cctccgtgac	actgtccatc	420
agagctgact	tccctgtccc	tagcataact	gacattggac	atcccgcacc	taatgtgaaa	480
aggataagat	gctccgcctc	cggagatttt	ccagagcctc	gcctcgcctg	gatggaagat	540
ggagaagaac	taaacgcctg	caacacgacg	gttgaccagg	atttgacac	ggagctctac	600
agcgtcagca	gtgaactgga	tttcaatgtg	acaaataacc	acagcatcgt	gtgtctcatc	660
aaatacgggg	agctgtcggg	gtcacagatc	ttcccttgga	gcaaacccaa	gcaggagcct	720
cccattgatc	agcttccatt	ctgggtcatt	atcccagtaa	gtggtgcttt	ggtgtcact	780
gtggtagtgc	tctactgcct	ggcctgcaga	catgttgcca	ggtggaaaag	aacaagaagg	840
aatgaagaga	cagtgggaac	tgaaaggctg	tcccctatct	acttaggctc	tgcgcaatcc	900
tcgggctga						909

<210> 22

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 22

atggggcaca	cacggaggca	gggaatatca	ccatccaagt	gtccatacct	caagttcttt	60
cagctcttgg	tgctggctgg	tctttctcac	ttctgttcag	gtgttatcca	cgtgaccaag	120
gaagtgaag	aagtggcaac	gctgtcctgt	ggtcacaatg	tttctgttga	agagctggca	180
caaactcgca	tccactggca	aaaggagaag	aaaatgggtc	tgactatgat	gtctggggac	240
atgaatatat	ggcccagata	caagaaccgg	accatctttg	atatcactaa	taacctctcc	300
attgtgatcc	tggtctgctg	cccactctgac	gagggcacat	acgagtgtgt	tggtctgaag	360
tatgaaaag	atgctttcaa	gcgggaacac	ctggctgaag	tgacgttatc	agtcaaagct	420
gacttcccta	cacctagtat	atctgacttt	gaaattccac	cttctaacat	tagaaggata	480
atttgcctca	cctctggagg	ttttcctgag	cctcacctct	cctggctgga	aaatggagaa	540
gaattaaatg	ccatcaacac	aacagtttcc	caagatcctg	gaactgagct	ctatactgtt	600
agcagcaaac	tggattttcaa	tatgacaacc	aaccacagct	tcatgtgtct	catcaagtat	660

```

ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaag gtgtacgccc tgtatga 867

```

<210> 23

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 23

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atggggccaca cacggaggca ggggaatatca ccatccaagt gtccatacct caattttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggggaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggtctgctg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcctta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcgctctt cctgggttga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaag gtgtacgccc tgtatga 867

```

<210> 24

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 24

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atgagccaca cacggaggca ggggaacatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggctag tctttctcac ttctgttcag gtgttatcca catgaccaag 120
gaagtgaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggtctgctg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcctta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacaa ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cccactgttt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840

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agaagggaaa gtgtacaccc tgtatga

867

<210> 25

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 25

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atggggccaca cacggaggca gggaaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatgggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctactggaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480
atttgc tcaa cctctggagg ttttccagag cctcacctct tcgggttgga aaatggggaa 540
gaaataaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaccc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatgag 868
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<210> 26

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 26

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atgagccaca cacggaggca gggaaatatca ccatccaagt gtccatacct caatttcttt 60
cagctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtctcaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatgggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgc tcaa cctccggagg ttttccctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga ggagaaggaa tgagacactg 840
agaagggaaa gtgtacgccc tgtatga 867
```

<210> 27  
 <211> 865  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

<400> 27  
 atggggccaca cacggaggca ggggaatatca ccacccaagt gtccatacct caattttcttt 60  
 cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgactaag 120  
 gaagtgaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180  
 caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtccggggac 240  
 atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300  
 attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360  
 tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420  
 gacttcctca cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480  
 atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540  
 gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600  
 agcagcaaac tggattttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660  
 ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720  
 gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780  
 tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaatga gacactgaga 840  
 agggaaagtg tacgcctgt atgac 865

<210> 28  
 <211> 869  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

<400> 28  
 atgagccaca cacggaggca ggggaatatca ccatccaagt gtccatacct caagttcttt 60  
 cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120  
 gaagtgaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180  
 caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240  
 atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300  
 attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360  
 tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420  
 gacttcctca cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480  
 atttgctcaa cctctggagg ttttcagag cctcacctct tctggctgga aaatggggaa 540  
 gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600  
 agcagcaaac tggattttcaa tatgacaacc gatcgagtt ttgtgtgtct catcaagtat 660  
 ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720  
 gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780  
 tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagacactg 840  
 agaagggaaa gtgtacgcc tgtatgaaa 869

<210> 29  
 <211> 867  
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 29

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atgagccaca cacggaggca gggaatatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatgggtc tgacctgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctagtgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat taaaaggata 480
atttgcctca cctccggagg ttttcctgag cctcacctct cctggctgga aaatggggaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataaccac tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga ggagaaggaa tgagacactg 840
agaagggaaa gtgtacgcc tgtatga 867
```

<210> 30

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 30

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atgggccaca cacggaggca gggaacatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatgggtc tgactatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccaa cttctaacat tagaaggata 480
atttgcctca cctccggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctaccgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgcc tgtatgac 868
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<210> 31

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 31

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atgggctaca cacggaggca gggaaacatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccagg 120
gaagtgaaag aagtggcaac actgtcctgt ggccacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctagtgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480
atttgc tcaa cctctggagg ttttctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgggct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtataag 868
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<210> 32

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 32

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atgagccaca cacggaggca gggaaacatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtctcaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgc tcaa cctctggagg ttttctgag cctcacctct cctggctgga aaatggggaa 540
gaattaaatg gcatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga ggaggaggaa tgagagactg 840
agaagggaaa gtgtacaccc tgtatgag 868
```

<210> 33

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 33

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atgagccaca cacggaggca ggggaatatca ccatccaagt gtccatacct caatttcttt 60
cggctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctactgaag tgacgttatc agtcaaagct 420
ggcttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgcctca cctctggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga 867
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<210> 34

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 34

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atgagccaca cacggaggca ggggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctag tctttctcac ttctgttcag gtgttatcca catgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcaggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgcctca cctctggagg ttttccagag cctcacctct tctggctgga aaatggagag 540
gaattaaatg ccatcaacac aacagtttcc caagacctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacaccc tgtatgat 868
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<210> 35

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 35

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atgggtacac cacggaggca ggggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
```

```

gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatgggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcctta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacaccc tgtatgat 868

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<210> 36

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 36

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atgagccaca cacggaggca gggaaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctagca 180
caaactcgca tctactggca aaaggagaag aaaatgggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg ctcactgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcggaacac ctagtgaag tgacgttatc agtcaaagct 420
gacttcctta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcagcac aacagtttcc caagatcctg aaactgagct ctacactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgctga cctactgctt tgccccaaga tgcagagaga gaaggagcaa tgagagactg 840
agaagggaaa gtgtacgcc tgtatgaa 868

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<210> 37

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 37

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atgggcccaca cacggaggca gggaaatatca ccatccaagt gtccgtacct caattttcttt 60
cagctcttgg tgctagctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggggaag aaaatgggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300

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attgtgattc	tggctctgcg	cccatctgac	gagggcacat	acgagtgtgt	tgttctggag	360
tatgaaaaag	acgctttcaa	gcgagaacac	ctggctgaag	tgatgttatc	cgtcaaagct	420
gacttcccta	cacctagtat	atctgacttt	gaaattccaa	cttctaatat	tagaaggata	480
atttgctcaa	cctctggagg	ttttcctgag	cctcacctct	cctggctgga	aaatggagaa	540
gaattaaatg	ccatcaacac	aacagcttcc	caagatcctg	aaactgagct	ctatactgtt	600
agcagcaaac	tggatttcaa	tatgacaacc	aaccacagct	tcatgtgtct	catcaagtat	660
ggacatttaa	gagtgaatca	gaccttcaac	tgggaatacac	ccaagcaaga	gcattttcct	720
gataacctgc	tcccatcctg	ggccattacc	ttaatctcag	caaaggaat	ttttgtgata	780
tgctgcctgg	cctactgctt	tgccccagga	tgcagagaga	gaaagagcaa	tgagagactg	840
agaagggaaa	gtgtacgccc	tgtatgac				868

<210> 38

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 38

atggggccaca	cacggaggca	gggaatatca	ccatccaagt	gtccatacct	caagttcttt	60
cagctcttgg	tgctggcttg	tctttctcat	ctctgttcag	gtgttatcca	cgtgaccaag	120
gaagtgaag	aagtggcaac	actgtcctgt	ggtctcaatg	tttctgttga	agagctggca	180
caaactcgca	tccactggca	aaaggagaag	aaaatggtgc	tgactatgat	gtctggggac	240
atgaatatat	ggcccagagta	caagaaccgg	accatctttg	atatcactaa	taacctctcc	300
attgtgattc	tggctctgcg	cccatctgac	gagggcacat	acgagtgtgt	tgttctgaag	360
tatgataaag	acgctttcaa	gcgggaacac	ctggctgaag	tgacgttgct	agtcaaagct	420
gacttcccta	cacctagtat	atctgacttt	gaaattccac	cttctaacat	tagaaggata	480
atttgctcaa	cctccggagg	ttttcctgag	cctcacctct	cctggctgga	aaatggagaa	540
gaattaaatg	ccatcaacac	aacagtttcc	caagatcctg	aaactgagct	ctatactgtt	600
agcagcaaac	tggatttcaa	tatgacagcc	aatcacagtt	ttgtgtgtct	catcaagtat	660
ggacatttaa	gagtgaatca	gaccttcaac	tgggaatacac	ccaagcaaga	gcattttcct	720
gataacctgc	tcccatcctg	ggccattacc	ctaactctcag	taaaggaat	ttttgtgata	780
tgctgcctga	cctaccgctt	tgccccaaga	tgcagagaga	gaaagagcaa	tgagagactg	840
agaagggaaa	gtgtacgccc	tgtatga				867

<210> 39

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 39

atggggccaca	cacggaggca	gggaacatca	ccatccaagt	gtccatacct	caagttcttt	60
cagctcttgg	tgctggcttg	tctttctcac	ttctgttcag	gtgttatcca	cgtgaccaag	120
gaagtgaag	aagtggcaac	gctgtcctgt	ggtcacatg	tttctgttga	agagctggca	180
caaactcgca	tccactggca	aaaggagaag	aaaatggtgc	tgactatgat	gtctggggac	240
atgaatatat	ggcccagagta	caagaaccgg	accatctttg	atatcactaa	taacctctcc	300
atcgtgattc	tggctctgcg	cccatctgac	gagggcacat	acgagtgtgt	tgttctgaag	360
tatgaaaaag	atgctttcaa	gcgagaacac	ctggctgaag	tgatgttatc	cgtcaaagct	420
gacttcccta	cacctagtat	atctgacttt	gaaattccac	cttctaacat	tagaaggata	480

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atttgctcaa cctctggagg tttccagag cctcacctct tctggttgga aaatggggaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactggt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctaccgctt tgccccaaga tgcagagaga gaaagagcaa tgagacactg 840
agaagggaaa gtgtacgccc tgtatga 867

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<210> 40

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 40

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atggggccaca cacggaggca gggaaacatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgatggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgag cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctgctgaag tgatgttatc cgtcaaagct 420
gacttcctta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480
atttgctcaa cctctggagg tttccagag cctcacctct tctggttgga aaatggggaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactggt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtatgag 868

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<210> 41

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 41

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atggggccaca cacggaggca gggaaatatca ccatccaagt gtccataacct caagttcttt 60
cagctcttgg tgctagcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac gctgtcctgt ggtctcaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgag cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcctta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg tttcctgag cctcacctct cctggctgga aaatgggaaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatgtgtgt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660

```



```

ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga ggagaaggaa tgagacactg 840
agaagggaaa gtgtacgcc tgtatgac 868

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<210> 42

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 42

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atggggccaca cacggaggca ggggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tcttctcat ctctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggtctgctg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcggaacac ctggctgaag tgatgttatt cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttctgag cccacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcagcac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacaa ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cccactgttt tgccccaaga tgcagagaga gaaaggaggaa tgagagactg 840
agaagggaaa gtgtacgcc tgtatgac 868

```

<210> 43

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 43

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atgagccaca cacggaggca ggggaacatca ccatccaagt gtccatacct caagttcttt 60
cagctcctgg tgctggctgg tctttctcat ctctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggtctgctg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatt cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840

```

agaagggaaa gtgtacgccc tgtatgat

868

<210> 44

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 44

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atggggccaca cacggaggca ggaatatca ccatccaagt gtccgtacct caatttcctt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac actgtcctgt ggtcacaatg tttctgtga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcggaacac ctggctgaag tgatgttatc agtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcag cctctggagg ttttccagag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaggtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatga 867
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<210> 45

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 45

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atggggccaca cacggaggca ggaacatca ccatccaagt gtccgtacct caatttcctt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac gctgtcctgt ggtcacaatg tttctgtga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctccggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatga 868
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<210> 46  
 <211> 867  
 <212> DNA  
 <213> Papio sp.

<400> 46  
 atggggccaca cacggaggca ggggaatatca ccatccaagt gtccatacct caagttcttt 60  
 cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120  
 gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180  
 caaactcgca tctactggca aaaggagaag aaaatgggtg tgactatgat gtctggggac 240  
 atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300  
 attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360  
 tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420  
 gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480  
 atttgctcaa cctctggagg ttttccagag cctcacctct tctggttgga aaatggagaa 540  
 gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600  
 agcagcaaac tggatttcaa tatgacaacc aatcacagtt ttgtgtgtct catcaagtat 660  
 ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720  
 gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780  
 tgctgctga cctactgttt tgccccaaga tgcagagaga gaagaaggaa tgagacattg 840  
 agaagggaaa gtgtacgccc tgtatga 867

<210> 47  
 <211> 867  
 <212> DNA  
 <213> Pongo pygmaeus

<400> 47  
 atggggccaca cacggaggca ggggaacatca ccatccaagt gtccatacct caatttcttt 60  
 cagctcttgg tgctggctag tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120  
 gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180  
 caaactcgca tctactggca aaaggagaag aaaatgggtg tgactatgat gtctggggac 240  
 atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300  
 attgtgatcc tggctctgcg cccatctgac gagggcacat atgagtgtgt tgttctgaag 360  
 tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgacgttatc ggtcaaagct 420  
 gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggatg 480  
 atttgctcaa cctctggagg ttttccagag cctcacctct cctggttgga aaatggagaa 540  
 gaattaaatg ccatcagcac aacagtttcc caagatcctg aaactgagct ctatgctgtt 600  
 agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660  
 ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720  
 gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780  
 tgctgctga cctactgctt tgccccaaga tgcagagaga gaaggagcaa tgagagactg 840  
 agaagggaaa gtgtacgccc tgtatga 867

<210> 48  
 <211> 296  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 48  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys

1	5	10	15
Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys	20	25	30
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val	35	40	45
Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu	50	55	60
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro	65	70	75
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp	85	90	95
Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp	100	105	110
Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala	115	120	125
Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp	130	135	140
Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile	145	150	155
Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu	165	170	175
Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu	180	185	190
Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp	195	200	205
Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly	210	215	220
Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr	225	230	235
Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser	245	250	255
Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr	260	265	270
Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu	275	280	285
Met Gln Ser Cys Ser Gln Ser Pro	290	295	

<210> 49  
 <211> 299  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 49  
 Met Gly His Thr Leu Arg Pro Gly Thr Pro Leu Pro Arg Cys Leu His  
 1 5 10 15  
 Leu Lys Leu Cys Leu Leu Leu Ala Leu Ala Gly Leu His Phe Ser Ser  
 20 25 30  
 Gly Ile Ser Gln Val Thr Lys Ser Val Lys Glu Met Ala Ala Leu Ser  
 35 40 45  
 Cys Asp Tyr Asn Ile Ser Ile Asp Glu Leu Ala Arg Met Arg Ile Tyr  
 50 55 60  
 Trp Gln Lys Asp Gln Gln Met Val Leu Ser Ile Ile Ser Gly Gln Val  
 65 70 75 80  
 Glu Val Trp Pro Glu Tyr Lys Asn Arg Thr Phe Pro Asp Ile Ile Asn  
 85 90 95  
 Asn Leu Ser Leu Met Ile Leu Ala Leu Arg Leu Ser Asp Lys Gly Thr  
 100 105 110  
 Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe Arg Arg Glu  
 115 120 125  
 His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Ser Pro Val Pro  
 130 135 140  
 Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys Arg Ile Arg  
 145 150 155 160  
 Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met Glu  
 165 170 175  
 Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp Gln Asp Leu  
 180 185 190  
 Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe Asn Val Thr  
 195 200 205  
 Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu Leu Ser Val  
 210 215 220  
 Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro Pro Ile Asp  
 225 230 235 240  
 Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala Leu Val Leu  
 245 250 255

Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val Ala Arg Trp  
260 265 270

Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu Arg Leu Ser  
275 280 285

Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
290 295

<210> 50

<211> 299

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 50

Met Gly His Thr Leu Arg Pro Gly Thr Pro Leu Pro Arg Cys Leu His  
1 5 10 15

Leu Lys Leu Cys Leu Leu Leu Ala Leu Ala Gly Leu His Phe Ser Ser  
20 25 30

Gly Ile Ser Gln Val Thr Lys Ser Val Lys Glu Met Ala Ala Leu Ser  
35 40 45

Cys Asp Tyr Asn Ile Ser Ile Asp Glu Leu Ala Arg Met Arg Ile Tyr  
50 55 60

Trp Gln Lys Asp Gln Gln Met Val Leu Ser Ile Ile Ser Gly Gln Val  
65 70 75 80

Glu Val Trp Pro Glu Tyr Lys Asn Arg Thr Phe Pro Asp Ile Ile Asn  
85 90 95

Asn Leu Ser Leu Met Ile Leu Ala Leu Arg Leu Ser Asp Lys Gly Thr  
100 105 110

Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe Arg Arg Glu  
115 120 125

His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe Pro Val Pro  
130 135 140

Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys Arg Ile Arg  
145 150 155 160

Cys Ser Ala Ser Gly Asp Phe Pro Glu Pro Arg Leu Ala Trp Met Glu  
165 170 175

Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp Gln Asp Leu  
180 185 190

Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe Asn Val Thr  
 195 200 205  
 Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu Leu Ser Val  
 210 215 220  
 Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro Pro Ile Asp  
 225 230 235 240  
 Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala Leu Val Leu  
 245 250 255  
 Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val Ala Arg Trp  
 260 265 270  
 Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu Arg Leu Ser  
 275 280 285  
 Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295

<210> 51  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 51  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala  
 115 120 125  
 Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp

130	135	140
Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile		
145	150	155 160
Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu		
	165	170 175
Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val		
	180	185 190
Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp		
	195	200 205
Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly		
	210	215 220
Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu		
	225	230 235 240
Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly		
	245	250 255
Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His		
	260	265 270
Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr		
	275	280 285
Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly		
	290	295 300

<210> 52  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 52
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
1 5 10 15
Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
20 25 30
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
35 40 45
Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
50 55 60
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65 70 75 80



Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	85	90	95
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	100	105	110
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala	115	120	125
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	130	135	140
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile	145	150	155
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu	165	170	175
Tyr	Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Val	180	185	190
Ser	Gln	Asp	Pro	Gly	Thr	Glu	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp	195	200	205
Phe	Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly	210	215	220
Glu	Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu	225	230	235
Pro	Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly	245	250	255
Ala	Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His	260	265	270
Val	Ala	Arg	Trp	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr	275	280	285
Glu	Arg	Leu	Ser	Pro	Ile	Tyr	Leu	Gly	Ser	Ala	Gln	Ser	Ser	Gly		290	295	300

<210> 53

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 53

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys	1	5	10	15
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	---	---	----	----

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
 115 120 125  
 Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140  
 Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145 150 155 160  
 Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
 165 170 175  
 Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu  
 180 185 190  
 Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp  
 195 200 205  
 Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
 210 215 220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
 225 230 235 240  
 Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
 245 250 255  
 Ala Leu Val Leu Thr Ala Val Val Leu Tyr Arg Pro Ala Cys Arg His  
 260 265 270  
 Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
 275 280 285  
 Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 54

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 54

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys
1				5					10					15	
Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys
			20					25					30		
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val
		35					40					45			
Met	Leu	Ser	Cys	Asp	Tyr	Asn	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu
	50					55					60				
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro
65					70					75					80
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp
			85						90					95	
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp
			100					105					110		
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala
		115					120					125			
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp
	130					135					140				
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile
145					150					155					160
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu
			165						170					175	
Tyr	Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Val
		180						185					190		
Ser	Gln	Asp	Pro	Gly	Thr	Glu	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp
		195					200					205			
Phe	Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly
	210					215					220				
Glu	Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu
225					230					235					240
Pro	Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly
			245						250					255	
Ala	Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His

				260						265						270			
Val	Ala	Arg	Trp	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr				
		275							280				285						
Glu	Arg	Leu	Ser	Pro	Ile	Tyr	Leu	Gly	Ser	Ala	Gln	Ser	Ser	Gly					
		290					295					300							

<210> 55  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 55  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
   1                  5                  10                  15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
                   20                  25                  30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
           35                  40                  45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
   50                  55                  60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
   65                  70                  75                  80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
                   85                  90                  95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
           100                  105                  110  
 Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
           115                  120                  125  
 Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
   130                  135                  140  
 Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
   145                  150                  155                  160  
 Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
           165                  170                  175  
 Cys Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val  
           180                  185                  190  
 Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp  
   195                  200                  205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
 210 215 220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
 225 230 235 240  
 Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
 245 250 255  
 Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
 260 265 270  
 Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
 275 280 285  
 Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 56

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 56

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Pro Val Leu Lys Gly Ala  
 115 120 125  
 Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145 150 155 160  
 Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
 165 170 175  
 Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val  
 180 185 190  
 Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp  
 195 200 205  
 Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
 210 215 220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
 225 230 235 240  
 Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
 245 250 255  
 Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
 260 265 270  
 Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
 275 280 285  
 Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 57  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 57  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp

85					90					95					
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp
			100					105					110		
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala
		115					120					125			
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp
	130					135					140				
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile
145					150					155					160
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu
				165					170					175	
Tyr	Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Val
		180						185					190		
Ser	Gln	Asp	Pro	Gly	Thr	Glu	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp
		195					200					205			
Phe	Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly
	210					215					220				
Glu	Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu
225					230					235					240
Pro	Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly
				245					250					255	
Ala	Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His
			260					265					270		
Val	Ala	Arg	Trp	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr
		275					280					285			
Glu	Arg	Leu	Ser	Pro	Ile	Tyr	Leu	Gly	Ser	Ala	Gln	Ser	Ser	Gly	
	290					295					300				

<210> 58

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 58

Met	Gly	His	Thr	Met	Lys	Trp	Arg	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys
1				5					10					15	

Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys
		20						25					30		

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
 115 120 125  
 Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140  
 Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145 150 155 160  
 Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
 165 170 175  
 Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val  
 180 185 190  
 Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp  
 195 200 205  
 Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
 210 215 220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
 225 230 235 240  
 Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
 245 250 255  
 Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
 260 265 270  
 Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
 275 280 285  
 Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 59  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence



<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 59

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys	
1				5				10						15		
Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys	
			20					25					30			
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val	
		35					40					45				
Met	Leu	Ser	Cys	Asp	Tyr	Asn	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	
	50					55					60					
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	
65					70					75					80	
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	
			85						90					95		
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	
			100					105					110			
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala	
		115					120					125				
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	
	130					135					140					
Phe	Pro	Val	Pro	Ser	Ile	Thr	Asp	Ile	Gly	His	Pro	Ala	Pro	Asn	Val	
145					150					155					160	
Lys	Arg	Ile	Arg	Cys	Ser	Ala	Ser	Gly	Gly	Phe	Pro	Glu	Pro	Arg	Leu	
				165					170					175		
Ala	Trp	Met	Glu	Asp	Gly	Glu	Glu	Leu	Asn	Ala	Val	Asn	Thr	Thr	Val	
			180					185					190			
Asp	Gln	Asp	Leu	Asp	Thr	Glu	Leu	Tyr	Ser	Val	Ser	Ser	Glu	Leu	Asp	
		195					200					205				
Ser	Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly	
	210					215					220					
Glu	Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu	
225					230					235					240	
Pro	Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly	
				245					250					255		
Ala	Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His	
			260					265					270			

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
 275 280 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 60

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 60

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
 115 120 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145 150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
 165 170 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val  
 180 185 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp  
 195 200 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly

210		215		220
Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu				
225		230		235 240
Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly				
	245		250	255
Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His				
	260		265	270
Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr				
	275		280	285
Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly				
290		295		300

<210> 61  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 61  
 Met Gly His Thr Met Lys Trp Arg Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
 115 120 125  
 Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140  
 Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145 150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
 165 170 175  
 Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu  
 180 185 190  
 Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp  
 195 200 205  
 Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
 210 215 220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
 225 230 235 240  
 Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
 245 250 255  
 Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
 260 265 270  
 Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
 275 280 285  
 Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 62

<211> 302

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 62

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Asn Ala Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe  
 115 120 125  
 Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe  
 130 135 140  
 Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys  
 145 150 155 160  
 Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala  
 165 170 175  
 Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp  
 180 185 190  
 Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe  
 195 200 205  
 Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu  
 210 215 220  
 Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro  
 225 230 235 240  
 Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala  
 245 250 255  
 Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val  
 260 265 270  
 Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu  
 275 280 285  
 Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 63

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 63

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val

35					40					45						
Met	Leu	Ser	Cys	Asp	Tyr	Ser	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	
50					55					60						
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	
65					70					75					80	
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	
85					90					95						
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	
100					105					110						
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala	
115					120					125						
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	
130					135					140						
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile	
145					150					155					160	
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu	
165					170					175						
Tyr	Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Val	
180					185					190						
Ser	Gln	Asp	Pro	Gly	Thr	Glu	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp	
195					200					205						
Phe	Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly	
210					215					220						
Glu	Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu	
225					230					235					240	
Pro	Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly	
245					250					255						
Ala	Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His	
260					265					270						
Val	Ala	Arg	Trp	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr	
275					280					285						
Glu	Arg	Leu	Ser	Pro	Ile	Tyr	Leu	Gly	Ser	Ala	Gln	Ser	Ser	Gly		
290					295					300						

<210> 64

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 64

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys	1	5	10	15
Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys	20	25	30	
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val	35	40	45	
Met	Leu	Ser	Cys	Asp	Tyr	Ser	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	50	55	60	
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	65	70	75	80
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	85	90	95	
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	100	105	110	
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala	115	120	125	
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	130	135	140	
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile	145	150	155	160
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	Arg	Leu	165	170	175	
Ala	Trp	Met	Glu	Asp	Gly	Glu	Glu	Leu	Asn	Ala	Val	Asn	Thr	Thr	Val	180	185	190	
Asp	Gln	Asp	Leu	Asp	Thr	Glu	Leu	Tyr	Ser	Val	Ser	Ser	Glu	Leu	Asp	195	200	205	
Phe	Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly	210	215	220	
Glu	Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu	225	230	235	240
Pro	Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly	245	250	255	
Ala	Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His	260	265	270	
Val	Ala	Arg	Trp	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr	275	280	285	

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 65

<211> 300

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 65

Met Gly His Thr Leu Arg Pro Gly Thr Pro Leu Pro Arg Cys Leu His  
 1 5 10 15

Leu Lys Leu Cys Leu Leu Leu Ala Leu Ala Gly Leu His Phe Ser Ser  
 20 25 30

Gly Ile Ser Gln Val Thr Lys Ser Val Lys Glu Met Ala Ala Leu Ser  
 35 40 45

Cys Asp Tyr Asn Ile Ser Ile Asp Glu Leu Ala Arg Met Arg Ile Tyr  
 50 55 60

Trp Gln Lys Asp Gln Gln Met Val Leu Ser Ile Ile Ser Gly Gln Val  
 65 70 75 80

Glu Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp Met Asn Asp  
 85 90 95

Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp Ser Gly Thr  
 100 105 110

Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala Tyr Lys Leu  
 115 120 125

Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp Phe Pro Val  
 130 135 140

Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile Arg Arg Leu  
 145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu Tyr Trp Leu  
 165 170 175

Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val Ser Gln Asp  
 180 185 190

Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe Asn Val  
 195 200 205

Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu Leu Ser  
 210 215 220



Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro Pro Ile  
 225 230 235 240

Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala Leu Val  
 245 250 255

Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val Ala Arg  
 260 265 270

Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu Arg Leu  
 275 280 285

Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 66

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 66

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Pro Ser Asp  
 100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
 115 120 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145 150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu



Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
 115 120 125  
 Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140  
 Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145 150 155 160  
 Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
 165 170 175  
 Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val  
 180 185 190  
 Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp  
 195 200 205  
 Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
 210 215 220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
 225 230 235 240  
 Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
 245 250 255  
 Ala Leu Val Leu Ala Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
 260 265 270  
 Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
 275 280 285  
 Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 68

<211> 302

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 68

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45



<400> 69

Met	Gly	His	Thr	Arg	Arg	Gln	Gly	Ile	Ser	Pro	Ser	Lys	Cys	Pro	Tyr	
1				5					10					15		
Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Gly	Leu	Ser	His	Phe	Cys	
			20					25					30			
Ser	Gly	Val	Ile	His	Val	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu	
		35					40					45				
Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile	
	50					55					60					
His	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp	
65					70					75					80	
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	
				85					90					95		
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	
		100						105					110			
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg	
		115					120					125				
Glu	His	Leu	Ala	Glu	Val	Thr	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	
	130					135					140					
Pro	Ser	Ile	Ser	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile	
145				150						155					160	
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu	
				165					170					175		
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp	
		180						185					190			
Pro	Gly	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	
		195					200					205				
Thr	Thr	Asn	His	Ser	Phe	Met	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	
	210					215					220					
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	
225					230					235					240	
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly	
				245					250					255		
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg	
		260						265					270			
Glu	Arg	Arg	Arg	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	Arg	Pro	Val	
	275						280						285			

<210> 70  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 70

Met	Gly	Tyr	Thr	Arg	Arg	Gln	Gly	Thr	Ser	Pro	Ser	Lys	Cys	Pro	Tyr	1	5	10	15
Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Gly	Leu	Ser	His	Leu	Cys	20	25	30	
Ser	Gly	Val	Ile	His	Val	Thr	Asn	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu	35	40	45	
Ser	Cys	Gly	His	Asn	Val	Ser	Gly	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile	50	55	60	
Tyr	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Tyr	Gly	Asp	65	70	75	80
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	85	90	95	
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	100	105	110	
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg	115	120	125	
Glu	His	Leu	Ala	Glu	Val	Met	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	130	135	140	
Pro	Ser	Ile	Thr	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile	145	150	155	160
Ile	Cys	Leu	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	Arg	Leu	Ala	Trp	Met	165	170	175	
Lys	Asp	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Ser	Thr	Thr	Val	Ser	Gln	Asp	180	185	190	
Pro	Gly	Thr	Glu	Leu	Tyr	Ala	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	195	200	205	
Thr	Thr	Asn	His	Ser	Phe	Met	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	210	215	220	
Val	Asn	Gln	Thr	Phe	Ser	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	225	230	235	240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
245 250 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
260 265 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
275 280 285

<210> 71  
<211> 288  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 71  
Met Ser His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr  
1 5 10 15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys  
20 25 30

Ser Gly Val Ile His Met Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
50 55 60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
100 105 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
115 120 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
130 135 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu  
165 170 175

Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp	180	185	190
Pro	Glu	Thr	Glu	Leu	Tyr	Ala	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	195	200	205
Thr	Thr	Asn	His	Ser	Phe	Met	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	210	215	220
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Thr	Lys	Gln	Glu	His	Phe	Pro	225	230	235
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly	245	250	255
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	His	Cys	Phe	Ala	Pro	Arg	Cys	Arg	260	265	270
Glu	Arg	Arg	Arg	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	His	Pro	Val	275	280	285

<210> 72

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 72

Met	Gly	His	Thr	Arg	Arg	Gln	Gly	Ile	Ser	Pro	Ser	Lys	Cys	Pro	Tyr	1	5	10	15
Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Cys	Leu	Ser	His	Phe	Cys	20	25	30	
Ser	Gly	Val	Ile	His	Val	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu	35	40	45	
Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile	50	55	60	
Tyr	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp	65	70	75	80
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	85	90	95	
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	100	105	110	
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg				



115	120	125
Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr 130 135 140		
Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile 145 150 155 160		
Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Gly Leu 165 170 175		
Glu Asn Gly Glu Glu Ile Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp 180 185 190		
Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met 195 200 205		
Thr Pro Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg 210 215 220		
Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro 225 230 235 240		
Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly 245 250 255		
Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg 260 265 270		
Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val 275 280 285		

<210> 73

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 73

Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr 1 5 10 15
Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys 20 25 30
Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu 35 40 45
Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile 50 55 60

Tyr	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp	
65					70					75					80	
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	
				85					90					95		
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	
			100					105					110			
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg	
		115					120					125				
Glu	His	Leu	Ala	Glu	Val	Met	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	
	130					135					140					
Pro	Ser	Ile	Ser	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile	
145					150					155					160	
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu	
				165					170					175		
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp	
			180					185					190			
Pro	Glu	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	
		195					200					205				
Thr	Ala	Asn	His	Ser	Phe	Val	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	
	210					215					220					
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	
225					230					235					240	
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly	
				245					250					255		
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg	
			260					265					270			
Glu	Arg	Arg	Arg	Asn	Glu	Thr	Leu	Arg	Arg	Glu	Ser	Val	Arg	Pro	Val	
	275						280					285				

<210> 74

<211> 287

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 74

Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Pro Lys Cys Pro Tyr  
 1 5 10 15  
 Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys  
 20 25 30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45  
 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60  
 His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
 65 70 75 80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
 85 90 95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
 100 105 110  
 Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125  
 Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140  
 Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
 145 150 155 160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu  
 165 170 175  
 Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp  
 180 185 190  
 Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met  
 195 200 205  
 Thr Ala Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
 225 230 235 240  
 Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
 245 250 255  
 Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
 260 265 270  
 Glu Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val  
 275 280 285

<210> 75

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 75

Met	Ser	His	Thr	Arg	Arg	Gln	Gly	Ile	Ser	Pro	Ser	Lys	Cys	Pro	Tyr
1				5					10					15	

Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Cys	Leu	Ser	His	Phe	Cys
			20					25					30		

Ser	Gly	Val	Ile	His	Val	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu
		35					40					45			

Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile
	50					55					60				

His	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp
65					70					75					80

Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr
				85					90					95	

Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly
		100						105					110		

Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg
	115						120					125			

Glu	His	Leu	Ala	Glu	Val	Met	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr
	130					135					140				

Pro	Ser	Ile	Thr	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile
145					150					155					160

Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Phe	Trp	Leu
			165						170					175	

Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp
		180						185					190		

Pro	Glu	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met
	195						200					205			

Thr	Thr	Asp	Arg	Ser	Phe	Val	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg
	210					215					220				

Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro
225					230					235					240

Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Ala	Asn	Gly
			245						250					255	

Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

260	265	270
Glu Arg Lys Ser Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val		
275	280	285

<210> 76  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 76  
 Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15  
 Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys  
 20 25 30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45  
 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60  
 His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
 65 70 75 80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
 85 90 95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
 100 105 110  
 Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125  
 Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140  
 Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Lys Arg Ile  
 145 150 155 160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu  
 165 170 175  
 Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp  
 180 185 190  
 Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met  
 195 200 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
 225 230 235 240  
 Asp Asn Pro Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly  
 245 250 255  
 Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
 260 265 270  
 Glu Arg Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val  
 275 280 285

<210> 77

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 77

Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15  
 Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys  
 20 25 30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45  
 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60  
 His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
 65 70 75 80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
 85 90 95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
 100 105 110  
 Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125  
 Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140  
 Pro Ser Ile Thr Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile  
 145 150 155 160

Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu	165	170	175
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp	180	185	190
Pro	Glu	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	195	200	205
Thr	Thr	Asn	His	Ser	Phe	Met	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	210	215	220
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	225	230	235
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly	245	250	255
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Arg	Phe	Ala	Pro	Arg	Cys	Arg	260	265	270
Glu	Arg	Lys	Ser	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	Arg	Pro	Val	275	280	285

<210> 78

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 78

Met	Gly	Tyr	Thr	Arg	Arg	Gln	Gly	Thr	Ser	Pro	Ser	Lys	Cys	Pro	Tyr	1	5	10	15
Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Cys	Leu	Ser	His	Phe	Cys	20	25	30	
Ser	Gly	Val	Ile	His	Val	Thr	Arg	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu	35	40	45	
Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile	50	55	60	
His	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp	65	70	75	80
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	85	90	95	
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	100	105	110	
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg				

115	120	125
Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr		
130	135	140
Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile		
145	150	155
Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu		
	165	170
		175
Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp		
	180	185
		190
Pro Glu Thr Gly Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met		
	195	200
		205
Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg		
	210	215
		220
Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro		
225	230	235
		240
Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly		
	245	250
		255
Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg		
	260	265
		270
Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val		
	275	280
		285

<210> 79

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 79

Met Ser His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr		
1	5	10
		15
Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys		
	20	25
		30
Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu		
	35	40
		45
Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile		
	50	55
		60
Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp		
65	70	75
		80



Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	85	90	95	
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	100	105	110	
Thr	Tyr	Glu	Cys	Val	Val	Leu	Glu	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg	115	120	125	
Glu	His	Leu	Ala	Glu	Val	Met	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	130	135	140	
Pro	Ser	Ile	Ser	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile	145	150	155	160
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu	165	170	175	
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Gly	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp	180	185	190	
Pro	Glu	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	195	200	205	
Thr	Thr	Asn	Arg	Ser	Phe	Val	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	210	215	220	
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	225	230	235	240
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly	245	250	255	
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg	260	265	270	
Glu	Arg	Arg	Arg	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	His	Pro	Val	275	280	285	

<210> 80

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 80

Met	Ser	His	Thr	Arg	Arg	Gln	Gly	Ile	Ser	Pro	Ser	Lys	Cys	Pro	Tyr	1	5	10	15
Leu	Asn	Phe	Phe	Arg	Leu	Leu	Val	Leu	Ala	Ser	Leu	Ser	His	Phe	Cys	20	25	30	

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
           35                          40                          45  
 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
           50                          55                          60  
 His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
           65                          70                          75                          80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
                           85                          90                          95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
                   100                          105                          110  
 Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
           115                          120                          125  
 Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Gly Phe Pro Thr  
           130                          135                          140  
 Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
   145                          150                          155                          160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu  
                           165                          170                          175  
 Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp  
                   180                          185                          190  
 Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met  
           195                          200                          205  
 Thr Ala Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg  
           210                          215                          220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
   225                          230                          235                          240  
 Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly  
                   245                          250                          255  
 Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
           260                          265                          270  
 Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
           275                          280                          285

<210> 81

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

peptide

<400> 81

Met	Ser	His	Thr	Arg	Arg	Gln	Gly	Thr	Ser	Pro	Ser	Lys	Cys	Pro	Tyr	1	5	10	15
Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Ser	Leu	Ser	His	Phe	Cys	20	25	30	
Ser	Gly	Val	Ile	His	Met	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu	35	40	45	
Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile	50	55	60	
Tyr	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp	65	70	75	80
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	85	90	95	
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	100	105	110	
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Gln	115	120	125	
Glu	His	Leu	Ala	Glu	Val	Met	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	130	135	140	
Pro	Ser	Ile	Thr	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile	145	150	155	160
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Phe	Trp	Leu	165	170	175	
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp	180	185	190	
Pro	Glu	Thr	Glu	Leu	Tyr	Ala	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	195	200	205	
Thr	Thr	Asn	His	Ser	Phe	Val	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	210	215	220	
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	225	230	235	240
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Ala	Asn	Gly	245	250	255	
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg	260	265	270	
Glu	Arg	Arg	Arg	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	His	Pro	Val	275	280	285	

<210> 82  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 82  
 Met Gly Tyr Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr  
   1                  5                  10                  15  
 Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys  
                   20                  25                  30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
           35                  40                  45  
 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
       50                  55                  60  
 Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
   65                  70                  75                  80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
                   85                  90                  95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
           100                  105                  110  
 Thr Tyr Glu Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg  
   115                  120                  125  
 Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr  
   130                  135                  140  
 Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
 145                  150                  155                  160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu  
                   165                  170                  175  
 Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp  
           180                  185                  190  
 Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met  
   195                  200                  205  
 Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg  
   210                  215                  220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
 225                  230                  235                  240  
 Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly

				245						250						255			
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg				
			260					265					270						
Glu	Arg	Lys	Ser	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	His	Pro	Val				
		275					280					285							

<210> 83  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 83

Met	Ser	His	Thr	Arg	Arg	Gln	Gly	Ile	Ser	Pro	Ser	Lys	Cys	Pro	Tyr				
1				5				10					15						
Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Cys	Leu	Ser	His	Phe	Cys				
			20					25					30						
Ser	Gly	Val	Ile	His	Val	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu				
		35					40					45							
Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile				
	50					55				60									
Tyr	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp				
65					70					75					80				
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr				
				85				90						95					
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Ser	Ser	Asp	Glu	Gly				
			100					105					110						
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg				
		115					120					125							
Glu	His	Leu	Ala	Glu	Val	Thr	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr				
		130					135					140							
Pro	Ser	Ile	Thr	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile				
145					150					155					160				
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu				
				165					170					175					
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Ser	Thr	Thr	Val	Ser	Gln	Asp				
			180					185						190					
Pro	Glu	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met				
		195					200					205							

Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
 225 230 235 240  
 Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
 245 250 255  
 Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
 260 265 270  
 Glu Arg Arg Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
 275 280 285

<210> 84  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 84  
 Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15  
 Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys  
 20 25 30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45  
 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60  
 Tyr Trp Gln Lys Gly Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
 65 70 75 80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
 85 90 95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
 100 105 110  
 Thr Tyr Glu Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125  
 Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140  
 Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile  
 145 150 155 160

Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu
				165					170					175	
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Ala	Ser	Gln	Asp
			180					185					190		
Pro	Glu	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met
		195					200					205			
Thr	Thr	Asn	His	Ser	Phe	Met	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg
	210					215					220				
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro
225					230					235					240
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Ala	Asn	Gly
				245					250					255	
Ile	Phe	Val	Ile	Cys	Cys	Leu	Ala	Tyr	Cys	Phe	Ala	Pro	Gly	Cys	Arg
		260						265					270		
Glu	Arg	Lys	Ser	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	Arg	Pro	Val
	275						280					285			

<210> 85

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 85

Met	Gly	His	Thr	Arg	Arg	Gln	Gly	Ile	Ser	Pro	Ser	Lys	Cys	Pro	Tyr
1				5					10					15	
Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Cys	Leu	Ser	His	Leu	Cys
			20					25					30		
Ser	Gly	Val	Ile	His	Val	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu
		35					40					45			
Ser	Cys	Gly	Leu	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile
	50					55					60				
His	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp
65					70					75					80
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr
				85					90					95	
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly
		100						105					110		
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Asp	Lys	Asp	Ala	Phe	Lys	Arg

115	120	125
Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr		
130	135	140
Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile		
145	150	155
Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu		
	165	170
		175
Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp		
	180	185
		190
Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met		
	195	200
		205
Thr Ala Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg		
	210	215
		220
Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro		
225	230	235
		240
Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly		
	245	250
		255
Ile Phe Val Ile Cys Cys Leu Thr Tyr Arg Phe Ala Pro Arg Cys Arg		
	260	265
		270
Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val		
	275	280
		285

<210> 86

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 86

Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr		
1	5	10
		15
Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys		
	20	25
		30
Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu		
	35	40
		45
Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile		
	50	55
		60
His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp		
65	70	75
		80





Ser	Gly	Val	Ile	His	Val	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu	35	40	45	
Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile	50	55	60	
His	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp	65	70	75	80
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	85	90	95	
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	100	105	110	
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg	115	120	125	
Glu	His	Leu	Ala	Glu	Val	Met	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	130	135	140	
Pro	Ser	Ile	Ser	Asp	Phe	Glu	Ile	Pro	Thr	Ser	Asn	Ile	Arg	Arg	Ile	145	150	155	160
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Phe	Trp	Leu	165	170	175	
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp	180	185	190	
Pro	Glu	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	195	200	205	
Thr	Thr	Asn	His	Ser	Phe	Met	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	210	215	220	
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	225	230	235	240
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly	245	250	255	
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg	260	265	270	
Glu	Arg	Arg	Arg	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	Cys	Pro	Val	275	280	285	

<210> 88

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 88

Met	Gly	His	Thr	Arg	Arg	Gln	Gly	Ile	Ser	Pro	Ser	Lys	Cys	Pro	Tyr	1	5	10	15
Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Cys	Leu	Ser	His	Phe	Cys	20	25	30	
Ser	Gly	Val	Ile	His	Val	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu	35	40	45	
Ser	Cys	Gly	Leu	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile	50	55	60	
His	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp	65	70	75	80
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	85	90	95	
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	100	105	110	
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg	115	120	125	
Glu	His	Leu	Ala	Glu	Val	Met	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	130	135	140	
Pro	Ser	Ile	Ser	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile	145	150	155	160
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu	165	170	175	
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp	180	185	190	
Pro	Glu	Thr	Glu	Leu	Tyr	Ala	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	195	200	205	
Thr	Thr	Asn	His	Ser	Phe	Met	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	210	215	220	
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	225	230	235	240
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly	245	250	255	
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg	260	265	270	
Glu	Arg	Arg	Arg	Asn	Glu	Thr	Leu	Arg	Arg	Glu	Ser	Val	Arg	Pro	Val	275	280	285	

<210> 89  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 89

Met	Gly	His	Thr	Arg	Arg	Gln	Gly	Ile	Ser	Pro	Ser	Lys	Cys	Pro	Tyr	1	5	10	15
Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Gly	Leu	Pro	His	Leu	Cys	20	25	30	
Ser	Gly	Val	Ile	His	Val	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu	35	40	45	
Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile	50	55	60	
His	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp	65	70	75	80
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	85	90	95	
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	100	105	110	
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg	115	120	125	
Glu	His	Leu	Ala	Glu	Val	Met	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	130	135	140	
Pro	Ser	Ile	Thr	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile	145	150	155	160
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu	165	170	175	
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Ser	Thr	Thr	Val	Ser	Gln	Asp	180	185	190	
Pro	Glu	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	195	200	205	
Thr	Thr	Asn	His	Ser	Phe	Met	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	210	215	220	
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Thr	Lys	Gln	Glu	His	Phe	Pro	225	230	235	240
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Ala	Asn	Gly	245	250	255	

Ile Phe Val Ile Cys Cys Leu Thr His Cys Phe Ala Pro Arg Cys Arg  
 260 265 270

Glu Arg Lys Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
 275 280 285

<210> 90

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 90

Met Ser His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Leu Cys  
 20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
 65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
 85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
 100 105 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile  
 145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu  
 165 170 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp  
 180 185 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met  
 195 200 205

Thr Ala Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
 225 230 235 240  
 Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
 245 250 255  
 Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
 260 265 270  
 Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
 275 280 285

<210> 91

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 91

Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15  
 Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys  
 20 25 30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45  
 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60  
 His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
 65 70 75 80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
 85 90 95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
 100 105 110  
 Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125  
 Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140  
 Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
 145 150 155 160  
 Ile Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu

	165		170		175
Glu Asn Gly	Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp				
	180		185		190
Pro Glu Thr	Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met				
	195		200		205
Thr Thr Asn His Ser Phe Met Cys Leu Ile Arg Tyr Gly His Leu Arg					
	210		215		220
Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro					
	225		230		235
Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly					
	245		250		255
Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg					
	260		265		270
Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val					
	275		280		285

<210> 92

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 92

Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr					
1	5		10		15
Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys					
	20		25		30
Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu					
	35		40		45
Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile					
	50		55		60
His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp					
	65		70		75
Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr					
	85		90		95
Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly					
	100		105		110
Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg					
	115		120		125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140  
 Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
 145 150 155 160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu  
 165 170 175  
 Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp  
 180 185 190  
 Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met  
 195 200 205  
 Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
 225 230 235 240  
 Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
 245 250 255  
 Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
 260 265 270  
 Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
 275 280 285

<210> 93  
 <211> 288  
 <212> PRT  
 <213> Papio sp.

<400> 93  
 Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15  
 Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys  
 20 25 30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45  
 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60  
 Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
 65 70 75 80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
 85 90 95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly



100					105					110						
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg	
115					120					125						
Glu	His	Leu	Ala	Glu	Val	Met	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	
130					135					140						
Pro	Ser	Ile	Thr	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile	
145					150					155					160	
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Phe	Trp	Leu	
165					170					175						
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp	
180					185					190						
Pro	Gly	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	
195					200					205						
Thr	Thr	Asn	His	Ser	Phe	Val	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	
210					215					220						
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	
225					230					235					240	
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly	
245					250					255						
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg	
260					265					270						
Glu	Arg	Arg	Arg	Asn	Glu	Thr	Leu	Arg	Arg	Glu	Ser	Val	Arg	Pro	Val	
275					280					285						

<210> 94

<211> 288

<212> PRT

<213> Pongo pygmaeus

<400> 94

Met	Gly	His	Thr	Arg	Arg	Gln	Gly	Thr	Ser	Pro	Ser	Lys	Cys	Pro	Tyr	
1				5				10					15			
Leu	Asn	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Ser	Leu	Ser	His	Phe	Cys	
20					25					30						
Ser	Gly	Val	Ile	His	Val	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu	
35					40					45						
Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile	
50					55					60						
Tyr	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp	
65					70					75					80	

Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr			
				85					90					95				
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly			
		100						105					110					
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg			
		115					120					125						
Glu	His	Leu	Ala	Glu	Val	Thr	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr			
	130					135					140							
Pro	Ser	Ile	Ser	Asp	Phe	Glu	Ile	Pro	Thr	Ser	Asn	Ile	Arg	Arg	Met			
145				150						155					160			
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu			
				165					170					175				
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Ser	Thr	Thr	Val	Ser	Gln	Asp			
		180						185					190					
Pro	Glu	Thr	Glu	Leu	Tyr	Ala	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met			
		195					200					205						
Thr	Thr	Asn	His	Ser	Phe	Met	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg			
	210					215					220							
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro			
225					230					235					240			
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly			
				245					250					255				
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg			
		260						265					270					
Glu	Arg	Arg	Ser	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	Arg	Pro	Val			
	275						280					285						

<210> 95

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<220>

<221> modified\_base

<222> (213)

<223> A, T, C, G, other or unknown

<400> 95

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cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcaccce aaagagtgtg 120

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accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcgaaaag gatagtaaaa tgntgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgtacca tcaactgacat gaacgataac 300
ctccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggagggt tttccaaggc cccacctcta ctggttgga 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtt ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtg tttggtgtctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
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tcctcgggct ga 912

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<210> 96

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 96

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accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggagggt tttccaaggc cccacctcta ctggttgga 540
aatggagaag aattaaatgc taccaacaca acaactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtg tttggtgtctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
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tcctcgggct ga 912

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<210> 97

<211> 930

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<220>

<221> modified\_base

<222> (929)

<223> A, T, C, G, other or unknown

<400> 97

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acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaaaaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcatgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttgga 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtg tttgggtgctc 780
actgcggtag ttctctactg cccggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tctcgggctg aggtaccaag cttaagttna 930
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<210> 98

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 98

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atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcatgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttgga 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtg tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tctcgggct ga 912
```

<210> 99

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 99

```
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccattgct ctggctccct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tctactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat tgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attcgggtc attatcccag taagtgggtg tttggtgtctc 780
actgcgatag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912
```

<210> 100

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 100

```
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccattgct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tctactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtg tttggtgtctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ag 912
```

<210> 101

<211> 909

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 101

```

atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctcc 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcca tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggtatcta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgcgtgggt 360
cagaagaatg agaacgggtc ttccagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc tagcataact gacattggac atcccgcctc taatgtgaaa 480
aggataagat gctccgcctc tggaggtttt ccagagcctc gcctcgctcg gatggaagat 540
ggagaagaac taaacgccgt caacacaacg gttgaccagg atttggacac ggagctctac 600
agcgtcagca gtgagctgga tttcaatgtg acaaataacc acagcatcgt gtgtctctac 660
aaatacgggg agctgtcggg gtcacagatc ttcccttggg gcaaaccctc gcaggagcct 720
cccattgata agcttccatt ctgggtcatt atcccagtaa gtggtgcttt ggtgctcact 780
gcggtagtgc tctactgcct ggccctgcaga catgttgcca ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctga                                     909

```

<210> 102  
 <211> 912  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

```

<400> 102
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggtatcta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggagggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtc tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacgaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccocta tctacttagg ctctgcgcaa 900
tctcgggct ga                                     912

```

<210> 103  
 <211> 891  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

```

<400> 103
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60

```

cagctcttgg	tgctcactgg	tcttttttac	ttctgttcag	gcatcacccc	aaagagtgtg	120
acaaaaagag	tgaaagaaac	agtaatgcta	tcctgtgatt	acaacacatc	cactgaagaa	180
ctgacaagcc	ttcgatcta	ttggcaaaaag	gatagtaaaa	tggtgctggc	catcctgcct	240
ggaaaagtgc	aggtgtggcc	tgagtacaag	aaccgcacca	tactgacat	gaacgataac	300
ccccgtattg	tgatcctggc	tctgcgcctg	tggacagtg	gcacctacac	ctgtgttatt	360
cagaagcctg	ttttgaaagg	ggcttataaa	ctggagcacc	tgacttccgt	gaggttaatg	420
atcagagctg	acttccctgt	ccctaccata	aatgatcttg	gaaatccatc	tcctaataatc	480
agaaggctaa	tttgctcaac	ctctggaggt	tttccaaggc	cccacctcta	ctggttggaa	540
aatggagaag	aattaaatgc	taccaacaca	acactgtccc	aagatcctga	aaccaagctc	600
tacatgatta	gcagtgaact	ggatttcaac	atgacaagca	atcacagctt	cttgtgtctt	660
gtcaagtatg	gagacttaac	agtgtcacag	accttctact	ggcaagaatc	caaaccaacc	720
ccttctgcta	atcagcacct	gacctggacc	attattatcc	cagtctcagc	atttgggatt	780
tctgtgatca	ttgcagttat	actaacatgc	ctgacctgca	gaaatgctgc	aatacgcaga	840
cagagaaggg	agaatgaagt	ggaaatgcaa	agttgctctc	agtctccata	g	891

<210> 104

<211> 892

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 104

atggggtcaca	caatgaagtg	gggatcacta	ccacccaagc	gcccattgcct	ctggctctct	60
cagctcttgg	tgctcactgg	tcttttttac	ttctgttcag	gcatcacccc	aaagagtgtg	120
acaaaaagag	tgaaagaaac	agtaatgcta	tcctgtgatt	acaacacatc	cactgaagaa	180
ctgacaagcc	ttcgatcta	ttggcaaaaag	gatagtaaaa	tggtgctggc	catcctgcct	240
ggaaaagtgc	aggtgtggcc	tgagtacaag	aaccgcacca	tactgacat	gaacgataac	300
ccccgtattg	tgatcctggc	tctgcgcctg	tggacagtg	gcacctacac	ctgtgttatt	360
cagaagcctg	atttgaaagg	ggcttataaa	ctggagcacc	tgacttccgt	gaggttaatg	420
atcagagctg	acttccctgt	ccctaccata	aatgatcttg	gaaatccatc	tcctaataatc	480
agaaggctaa	tttgctcaac	ctctggaggt	tttccaaggc	cccacctcta	ctggttggaa	540
aatggagaag	aattaaatgc	taccaacaca	acactgtccc	aagatcctga	aaccaagctc	600
tacatgatta	gcagtgaact	ggatttcaac	atgacaagca	atcacagctt	cttgtgtctt	660
gtcaagtatg	gagacttaac	agtgtcacag	accttctact	ggcaagaatc	caaaccaacc	720
ccttctgcta	atcagcacct	gacctggacc	attattatcc	cagtctcagc	atttgggatt	780
tctgtgatca	ttgcagttat	actaacatgc	ctgacctgca	gaaatgctgc	aatacgcaga	840
cagagaaggg	agaatgaagt	gaaaatgcaa	agttgctctc	agtctccatg	ag	892

<210> 105

<211> 828

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 105

atggggtcaca	caatgaagtg	gggatcacta	ccacccaagc	gcccattgcct	ctggctctct	60
cagctcttgg	tgctcactgg	tcttttttac	ttctgttcag	gcatcacccc	aaagagtgtg	120
acaaaaagag	tgaaagaaac	agtaatgcta	tcctgtgatt	acagcacatc	cactgaagaa	180
ctgacaagcc	ttcgatcta	ttggcaaaaag	gatagtaaaa	tggtgctggc	catcctgcct	240

```

ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacctccgt gacactgtcc 420
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaattgtg 480
aaaaggataa gatgctccgc ctctggaggt tttccagagc ctgcctcgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttggg cacggagctc 600
tacagcgtca gcagtgaact ggatttcaat gcgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attgtcccag taagtgggtg tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtga 828

```

<210> 106

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 106

```

atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tctgtgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggtacta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca aactgtccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtg tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcacaa 900
tcctcgggct ga 912

```

<210> 107

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 107

```

atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tctgtgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggtacta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420

```



```

atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctgggttgaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgcgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtg tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatggtg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tctcgggct ag                                     912

```

<210> 108  
 <211> 912  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

```

<400> 108
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tctgtgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tctactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatt 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctgggttgaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtg tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatggtg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tctcgggct ga                                     912

```

<210> 109  
 <211> 912  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

```

<400> 109
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tctgtgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tctactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatt 420
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaattgtg 480

```

```

aaaaggataa gatgctccgc ctctggagat tttccagagc ctgcgcctgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttgga cacggagctc 600
tacagcgtca gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtgc tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga                                     912

```

```

<210> 110
<211> 913
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: Synthetic
      nucleotide sequence

```

```

<400> 110
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tctactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggagggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact gggtttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtgc tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct gag                                     913

```

```

<210> 111
<211> 912
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: Synthetic
      nucleotide sequence

```

```

<220>
<221> modified_base
<222> (827)
<223> A, T, C, G, other or unknown

```

```

<400> 111
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240

```

```

ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttctgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttgga 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtg tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtngaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ag

```

<210> 112

<211> 882

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 112

```

atggggccaca cgctgaggcc gggaaactcca ctgcccaggt gtctacacct caagctctgc 60
ctgctcttgg cgctggcggg tctccacttc tcttcaggta tcagccaggt caccaagtcg 120
gtgaaagaaa tggcagcact gtctgtgat tacaacattt ctatcgatga actggcgaga 180
atgcgcatat actggcagaa ggaccaacag atggtgctga gcatcatctc tgggcaagtg 240
gaggtgtggc ctgagtacaa gaaccgcacc atcaactgaca tgaacgataa cccccgtatt 300
gtgatcctgg ctctgcgcct gtcggacagt ggcacctaca cctgtgttat tcagaagcct 360
gttttgaaag gggcttataa accggagcac ctggcttccg tgaggttaat gatcagagct 420
gacttccctg tccctaccat aaatgatctt ggaaatccat ctctaataat cagaaggcta 480
atttgcctca cctctggagg tttccaagg cccacctct actggttga aaatggagaa 540
gaattaaatg ctaccaacac aacactgtcc caagatcctg aaaccaagct ctacatgatt 600
agcagtgaac tggatttcaa catgacaagc aatcacagct tcttgtgtct tgtcaagtat 660
ggagacttaa cagtgtcaca gaccttctac tggcaagaat ccaaaccaac cccttctgct 720
aatcagcacc tgacctggac cattattatc ccagtctcag catttgggat ttctgtgac 780
attgcagtta tactaacatg cctgacctgc agaaatgctg caatacgag acagagaagg 840
gagaatgaag tggaaatgca aagttgctct cagtctccat ag

```

<210> 113

<211> 906

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 113

```

atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggtacta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatccaggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360

```

```

cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctactgat cttggaaatc catctcctaa tatcagaagg 480
ctaatttgc tcaacctctg aggttttcca aggccccacc tctactgggt ggaaaatgga 540
gaagaattaa atgctaccaa cacaacagtt tcccaagatc ctggaactga gctctacatg 600
attagcagtg aactggattt caatgtgaca aataaccaca gcatcgtgtg tctcatcaaa 660
tacggggagc tgtcgggtgc acagatcttc ccttggagca aaccaagca ggagcctccc 720
attgatcagc ttccattctg ggtcattatc ccagtaagtg gtgctttggg gctcactgcg 780
gtagttctct actgcctggc ctgcagacat gttgcgaggt ggaaaagaac aagaagggaat 840
gaagagacag tgggaactga aaggctgtcc cctatctact taggctctgc gcaatcctcg 900
ggctga
906

```

```

<210> 114
<211> 912
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

```

```

<400> 114
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcaccac aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tctgtgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggtatcta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcatgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tgggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca aactgtccc aagatcctga aaccgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtc tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tctcgggct ga
912

```

```

<210> 115
<211> 912
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

```

```

<400> 115
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcaccac aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tctgtgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggtatcta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcatgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tgggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420

```

```

atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttgga 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtg tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga
912

```

<210> 116  
 <211> 910  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic nucleotide sequence

```

<400> 116
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccattgct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tctgtgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttccgatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tccggacagtg gcacctacac ctgcgtgggt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc tagcataact gacattggac atcccgcgcc taatgtgaaa 480
aggataagat gctccgcctc tggagatttt ccagagcctc gcctcgcctg gatggaagat 540
ggagaagaac taaacgccgt caacacgacg gttgaccagg atttgacac ggagctctac 600
agcgtcagca gtgaactgga tttcaatgtg acaaataacc acagcatcgt gtgtctcatc 660
aaatacgggg agctgtcggg gtcacagatc ttccttggga gcaaacccaa gcaggagcct 720
cccattgac agcttccatt ctgggtcatt atcctagtaa gtgggtgctt ggtgtcact 780
gcggtagttc tctactgcct ggccctgcga catgttgca ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctgag
910

```

<210> 117  
 <211> 903  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic nucleotide sequence

```

<400> 117
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccattgct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tctgtgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttccgatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tccggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctagcata actgacattg gacatccgc ccctaagtgt 480

```

```

aaaaggataa gatgctccgc ctctggagat tttccagagc ctgcgctcgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttttgg acacggagct ctacagcgtc 600
agcagtgaac tggatttcaa tgtgacaaat aaccacagca tcgtgtgtct catcaaatac 660
ggggagctgt cgggtgtcaca gatcttccct tggagcaaac ccaagcagga gcctccatt 720
gatcagcttc cattctgggt cattatccca gtaagtgggt ctttgggtgct cactgcggtg 780
gttctctact gcctggcctg cagacatgtt gcgaggtgga aaagaacaag aaggaatgaa 840
gagacagtgg gaactgaaag gctgtcccct atctacttag gctctgcgca accctcgggc 900
tga
903

```

<210> 118  
 <211> 912  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

```

<400> 118
atgggtcaca caatggagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcatgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttagaa 540
aatggagaag aattaaatgc taccaacaca aactgtccc aagatcctga aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctccattg atcagcttcc attctgggtc attatcccag taagtgggtc tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga
912

```

<210> 119  
 <211> 912  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

```

<400> 119
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgccc 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcatgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccagagc ctgcgctcgc ctggatggaa 540

```

```

gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttggg cacggagctc 600
tacagcgta gacgtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtg tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tctcgggct ga                                     912

```

<210> 120

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 120

```

atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tctgtgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggtacta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgctg tggacagtgc gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggagggt tttccaaggc cccacctcta ctggttgtaa 540
aatggagaag aattaaatgc taccaacaca aactgtccc aagatcctga aaccaagctc 600
tacatgatta gacgtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtg tttgggtgctc 780
actgcagttag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tctcgggct ga                                     912

```

<210> 121

<211> 913

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 121

```

atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tctgtgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggtacta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgctg tggacagtgc gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaattgtg 480
aaaaggataa gatgtccgc ctctggagat ttccagagc ctcgcctcgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttggg cacggagctc 600

```

tacagcgtca	gcagtgaact	ggatttcaat	gtgacaaata	accacagcat	cgtgtgtctc	660
atcaaatacg	gggagctgtc	ggtgtcacag	atcttccctt	ggagcaaacc	caagcaggag	720
cctcccatg	atcagcttcc	attctgggtc	attatcccag	taagtgggtc	tttgggtgtc	780
actgcggtag	ttctctactg	cctggcctgc	agacatgttg	cgaggtggaa	aagaacaaga	840
aggaatgaag	agacagtggg	aactgaaagg	ctgtccccta	tctacttagg	ctctgcgcaa	900
tcctcgggct	gag					913

<210> 122

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 122

atggggtcaca	caatgaagtg	gggatcacta	ccacccaagc	gcccattgcct	ctggctctct	60
cagctcttgg	tgctcactgg	tcttttttac	ttctgttcag	gcatcacccc	aaagagtgtg	120
accaaaagag	tgaaagaaac	agtaatgcta	tcctgtgatt	acaacacatc	cactgaagaa	180
ctgacaagcc	ttcggtatcta	ttggcaaaaag	gatagtaaaa	tggtgctggc	catcctgcct	240
ggaaaagtgc	aggtgtggcc	tgagtacaag	aaccgcacca	tactgacat	gaacgataac	300
ccccgtattg	tgatcctggc	tctgcgcctg	tcggacagtg	gcacctacac	ctgtgttatt	360
cagaagcctg	atttgaaagg	ggcttataaa	ctggagcacc	tggttccgt	gagggttaatg	420
atcagagctg	acttccctgt	ccctagcata	actgacattg	gacatccgc	ccctaattgtg	480
aaaaggataa	gatgtccgc	ctctggagat	tttccagagc	ctgcctcgc	ctggatggaa	540
gatggggaag	aactaaacgc	cgtcaacacg	acggttgacc	aggatttgga	cacggagctc	600
tacagcgtca	gcagtgaact	ggatttcaat	gtgacaaata	accacagcat	cgtgtgtctc	660
atcaaatacg	gggagctgtc	ggtgtcacag	atcttccctt	ggagcaaacc	caagcaggag	720
cctcccatg	atcagcttcc	attctgggtc	attatcccag	taagcgggtc	tttgggtgtc	780
actgcggtag	ttctctactg	cctggcctgc	agacatgttg	cgaggtggaa	aagaacaaga	840
aggaatgaag	agacagtggg	aactgaaagg	ctgtccccta	tctacttagg	ctctgcgcaa	900
tcctcgggct	ag					912

<210> 123

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 123

atggggtcaca	caatgaagtg	gggatcacta	ccacccaagc	gcccattgcct	ctggctctct	60
cagctcttgg	tgctcactgg	tcttttttac	ttctgttcag	gcatcacccc	aaagagtgtg	120
accaaaagag	tgaaagaaac	agtaatgcta	tcctgtgatt	acaacacatc	cactgaagaa	180
ctgacaagcc	ttcggtatcta	ttggcaaaaag	gatagtaaaa	tggtgctggc	catcctgcct	240
ggaaaagtgc	aggtgtggcc	tgagtacaag	aaccgcacca	tactgacat	gaacgataac	300
ccccgtattg	tgatcctggc	tctgcgcctg	tcggacagtg	gcacctacac	ctgtgttatt	360
cagaagcctg	ttttgaaagg	ggcttataaa	ctggagcacc	tggttccgt	gagggttaatg	420
atcagagctg	acttccctgt	ccctagcata	aatgatcttg	gaaatccatc	tcctaataac	480
agaaggctaa	tttgcctaac	ctctggaggt	tttccaaggc	cccacctcta	ctgggttgaa	540
aatggagaag	aattaaatgc	taccaacaca	acagtttccc	aagatcctgg	aactgagctc	600
tacatgatta	gcagtgaact	ggatttcaat	gtgacaaata	accacagcat	cgtgtgtctc	660



```

atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtc tttgggtgtc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctccgcgcaa 900
tcctcgggct ga 912

```

<210> 124

<211> 909

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 124

```

atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaaa aaccgcacct tccccgacat cattaacaac 300
ctctccctta tgatcctggc actgcgcctg tgggacaagg gcacctacac ctgcgtgggt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtctc tagcataact gacattggac atcccgcctc taatgtgaaa 480
aggataagat gctccgcctc tggaggtttt ccagagcctc gcctcgcctg gatggaagat 540
ggagaagaac taaacgccgt caacacgacg gttgaccagg atttggacac ggagctctac 600
agcgtcagca gtgaactgga tttcaatgtg acaaataacc acagcattgt gtgtctcatc 660
aaatacgggg agctgtcggg gtcacagatc ttccttggga gcaaaccctc gcaggagcct 720
cccattgatc agcttccatt ctgggtcatt atcccagtaa gtggtgcttt ggtgtctcact 780
gcggtagttc tctactgcct ggctgcaga catgttgcca ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctga 909

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<210> 125

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 125

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atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaatgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tgggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaattgtg 480
aaaaggataa gatgtccgcg ctctggagggt tttccagagc ctgcctcgcg ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttggg cacggagctc 600
tacagcgtca gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720

```

```

cctccattg atcagcttcc attctgggtc attatcccag taagtgggtgc tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tctcgggct ga 912

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<210> 126
<211> 912
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Synthetic
       nucleotide sequence

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<400> 126
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactga tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggtacta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggagggt ttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctccattg atcagcttcc attctgggtc attatcccag taagtgggtgc tttgggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg caaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tctcgggct ga 912

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<210> 127
<211> 912
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Synthetic
       nucleotide sequence

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<400> 127
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggtacta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggagggt ttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctccattg atcagcttcc attctgggtc attatcccag taagtgggtgc tttgggtgctc 780

```

```

actgcggcag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ag                                     912

```

<210> 128

<211> 903

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 128

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atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttaaaagg ggcttataaa ctggagcacc tggcttcctg gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcagg ttttccaagg cccacctct actggttgga aaatggagaa 540
gaattaaatg ctaccaacac aacagtttcc caagatcctg gaactgagct ctacatgatt 600
agcagtgaac tggatttcaa tgtgacaaat aaccacagca tcgtgtgtct catcaaatac 660
ggggagctgt cgggtgtcaca gatcttccct tggagcaaac ccaagcagga gcctccatt 720
gatcagcttc cattctgggt cattatccca gtaagtgggt ctttgggtgt cactgcggta 780
gttctctact gcctggcctg cagacatgtt gcgaggtgga aaagaacaag aaggaatgaa 840
gagacagtgg gaactgaaag gctgtcccct atctacttag gctctgcgca atcctcgggc 900
tga                                     903

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<210> 129

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 129

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atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc actgcgcctg tcggacaagg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttcctg gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttgga 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaac caagcaggag 720
cctccattg atcagcttcc attctgggtc attatcccag taagtgggtc tttgggtgtc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840

```

aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900  
tctcgggct ga 912

<210> 130

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 130

atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60  
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120  
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180  
ctgacaagcc ttcggatcta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240  
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300  
ccccgtattg tgatcctggc tctgcgctg tcggacagtg gcacctacac ctgtgttatt 360  
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420  
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480  
agaaggctaa tttgctcaac ctctggaggt ttccaaggc cccacctcta ctggttgga 540  
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600  
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660  
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720  
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtc tttgggtgctc 780  
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840  
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900  
tctcgggct ag 912

<210> 131

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 131

atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60  
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120  
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180  
ctgacaagcc ttcggatcta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240  
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300  
ccccgtattg tgatcctggc tctgcgctg tcggacagtg gcacctacac ctgtgttatt 360  
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420  
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaattgtg 480  
aaaaggataa gatgtccgc ctctggaggt ttccagagc ctgcctcgc ctggatggaa 540  
gatggagaa aactaaacgc cgtcaacacg acggttgacc aggatttggg cacggagctc 600  
tacagcgtca gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660  
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720  
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780  
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840  
cagagaaggg agaatgaagg gaaatgcaaa gtgctctcag tctccatagg taccaagctt 900

aagtttaacc gc

912

<210> 132

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 132

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atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcatgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgctg tcggacaagg gcacctacac ctgctgtggt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tggcttcctg gaggttaatg 420
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaagtgt 480
aaaaggataa gatgtccgc ctctggaggt ttccagagc ctgcctcgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttgga cacggagctc 600
tacagcgtca gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atctttcctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtg tttgggtgtc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tctcgggct ga 912
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<210> 133

<211> 891

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 133

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atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcatgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttcctg gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tccataatc 480
agaaggctaa tttgtcaac ctctggaggt ttccaaggc cccacctcta ctggttgga 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag tccttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcage atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgtctc agtctccatg a 891
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<210> 134  
<211> 909  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 134  
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60  
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120  
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180  
ctgacaagcc ttcggaatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240  
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcatgacat gaacgataac 300  
ccccgtattg tgatcctggc tctgcgcctg tgggacaagg gcacctacac ctgcgtggtt 360  
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420  
agagctgact tccctgtccc tagcataact gacattggac atcccgcctc taatgtgaaa 480  
aggataagat gctccgcctc tggaggtttt ccagagcctc gcctcgctg gatggaagat 540  
ggagaagaac taaacgccgt caacacgacg gttgaccagg atttgacac ggagctctac 600  
agcgtcagca gtgaactgga tttcaatgtg acaaataacc acagcatcgt gtgtctcatc 660  
aaatacgggg agctgtcggg gtcacagatc ttcccttggg gcaaaccctc gcaggagcct 720  
cccattgatc agcttccatt ctgggtcatt atcccagtaa gtggtgcttt ggtgctcact 780  
gcggtagttc tctactgcct ggcctgcaga catgttgcca ggtggaaaag aacaagaagg 840  
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900  
tcgggctag 909

<210> 135  
<211> 891  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 135  
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60  
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcaccacccc aaagagtgtg 120  
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180  
ctgacaagcc ttcggaatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240  
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcatgacat gaacgataac 300  
ccccgtattg tgatcctggc tctgcgcctg tgggacagtg gcacctacac ctgtgttatt 360  
cagaagcctg ttttgaaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420  
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480  
agaaggctaa tttgtcaaac ctctggagggt tttccaaggc cccacctcta ctggttggaa 540  
aatggagaag aattaaatgc taccaacaca aactgtccc aagatcctga aaccaagctc 600  
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660  
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720  
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780  
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840  
cagagaaggg agaatgaagt ggaaatgcaa agttgctctc agtctccatg a 891

<210> 136

<211> 912  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 136

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atggggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcgatcta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tctactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttgga 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accgcagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctccattg atcagcttcc attctgggtc attatcccag taagtgggtc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tctcgggct ga 912
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<210> 137  
<211> 891  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 137

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cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcgatcta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tctactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttgga 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac acgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgtctct agtctccatg a 891
```

<210> 138  
<211> 912  
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 138

```
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggtacta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcttgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgctg tcggacaagg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttgga 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctccattg atcagcttcc attctgggtc attatcccag taagtgtgtc tttggtgtc 780
actgcggtag ttctctactg cctggcctgc aggcattgtg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tctcgggct ga 912
```

<210> 139

<211> 891

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 139

```
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggtacta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcttgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttgga 540
aatggaaaag aattaaatgc taccaacaca aactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgtctc agtctccatg a 891
```

<210> 140

<211> 910

<212> DNA

<213> Artificial Sequence



<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 140

```
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaagagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tctactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgctg tcggacagtg gcacctacac ctgctgtggt 360
cagaagaatg agaacgggtc ttccagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc tagcataact gacattggac atcccgcctc taatgtgaaa 480
aggataagat gctccgcctc tggaggtttt ccagagcctc gcctcgctg gatggaagat 540
ggagaagaac taaacgccgt caacacgacg gttgaccagg atttgacac ggagctctac 600
agcgtcagca gtgaactgga tttcaatgtg acaaataacc acagcatcgt gtgtctcatc 660
aaatacgggg agctgtcggg gtcacagatc ttcccttggg gcaaaccctc gcaggagcct 720
cccattgatc agcttccatt ctgggtcatt atcccagtaa gtgggtgcttt ggtgctcact 780
gcggtagttc tctactgcct ggctgcaga catgttgcca ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctgag                                     910
```

<210> 141

<211> 912

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 141

```
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ccggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaagagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tctactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgtcaaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca aactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtgggtc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tctcgggct ga                                     912
```

<210> 142

<211> 882

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 142

```
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcaccac aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgectg tggacagtgc gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttcctg gaggttaatg 420
atcagagctg acttcctctg ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atttgtgtct tgtcaagtat 660
ggagacttaa cagtgtcaca gaccttctac tggcaagaat ccaaaccaac cccttctgct 720
aatacagacc tgacctggac cattattatc ccagtctcag catttgggat ttctgtgatc 780
attgcagtta tactaacatg cctgacctgc agaaatgctg caatacgcag acagagaagg 840
gagaatgaag tggaaatgca aagttgctct cagtctccat ga 882
```

<210> 143

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 143

```
atgagccaca cacggaggca ggaacatca ccatccaagt gtccgtacct caagttcttt 60
cagttcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgactaag 120
gaagtgaag aagtggcaac gctgtcctgt ggtctcaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggggaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggtctgctg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcctta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgcctca cctccggagg ttttctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagcttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccactctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cccactgttt tgccccaaga tgagagagaa gaaggaggaa tgagagattg 840
agaagggaag gtgcacgccc tgtatga 867
```

<210> 144

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 144

```
atgggctaca cacggaggca ggggaacatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactccca tctactggca aaaggagaag aaaatgggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgcctaa cctccggagg ttttcctgag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctaccgctt tgccccaaga tgcagagaga gaaggaggaa tgagaggctg 840
agaagggaag gtgtatgccc tgtatgag 868
```

<210> 145

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 145

```
atgggctaca cacggaggca ggggaatatca ccatccaagt gtccataacct caagttcttt 60
cagctcttgg tgctggctag tctttccac ttctgttcag gtgttatcca cgtgaccaag 120
aaagtgaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatgggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgaatgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgcctaa cctctggagg ttttcagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc gatcgagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgggagattg 840
agaagggaag gtgtacgccc tgtatga 867
```

<210> 146

<211> 868

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 146

```
atgagccaca cacagaggca ggggaatatca ccatccaagt gtccataacct caatttcttt 60
cagctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
```

```

gaagtgaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcgggagcac ctactgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgcctca cctctggagg ttttccagag cccacactct tctggctgga aaatggagaa 540
gaattaaatg ccatcagcac aacagtttcc caagatcctg aaactgagct ctatgctgtc 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaataca ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgctgga cctactgctt tgccccaaga tgcagagaga ggagaaggaa tgagagattg 840
agaagggaaa gtgtacaccc tgtatgag 868

```

<210> 147

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 147

```

atgggccaca cacggaggca gggaaacatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcat ctctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcgggaacac ctactgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccga cttctaatat tagaaggata 480
atttgcctca cctctggagg ttttccagag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgctgga cctactgctt tgccccagga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtatag 867

```

<210> 148

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 148

```

atgagccaca tacggaggca gggaaatatca ccatccaagt gtccatacct caatttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300

```

```

attgtgattc tggctctgcg cccatccgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgcctca cctctggagg ttttccagag cctcgctctg cctggatgga agatggagaa 540
gaactaaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgt tcccactctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgcc tgtatga 867

```

<210> 149

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 149

```

atgagccaca cacggaggca gggaaacatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggctag tctttctcac ttctgttcag gtgttatcca catgaccaag 120
gaagtgaag aagtggcaac gctgtcctgt ggtcccaatg tttccgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaacat tagaaggata 480
atttgcctca cctctggagg ttttctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccactctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cccactgttt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgcc tgtatga 867

```

<210> 150

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 150

```

atgagccaca cacggaggca gggaaatatca tcatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
aaagtgaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggggaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagagt caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgc tgttctgaag 360
tatgaaaaag acgctttcaa gcggaacac ctagtgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480

```

```

atttgetcaa cctctggagg ttttccagag cctcacctct tctgggttga aaatggggaa 540
gaattaaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaag gtgtacgccc tgtatga 867

```

<210> 151

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 151

```

atgggctaca cacggaggca gggaaacatca ccatccgagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca catgaccaag 120
gaagtgaag aagtggcaac actgtcctgt ggtctcaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggtctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgccttcaa gcgggaacac ctggctgaag tgatgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgetcaa cctctggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgggct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagactg 840
agaagggaag gtgtacgccc tgtatga 867

```

<210> 152

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 152

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atgagccaca cacggaggca gggaaatcat ccatccaagt gtccatacct caatttcttt 60
cggctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggtctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgcttcaa gcgagaacac ctagtgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgetcaa cctctggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660

```

```

ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga 867

```

<210> 153

<211> 901

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<220>

<221> modified\_base

<222> (893)..(894)

<223> A, T, C, G, other or unknown

<400> 153

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atgagccaca cacggaggca gggaaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagca caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggtctgctg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcctta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctccggagg ttttctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactggt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagta 660
ggacatttaa gagtgaatca gaccttcagc tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagaccctg 840
agaagggaaa gtgtacgccc tgtatggggt accaagctta agtttaaacc gcnnatcagc 900
c 901

```

<210> 154

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 154

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atggggccaca cacggaggca gggaaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgactaag 120
gaagtgaag aagtggcaac gctgtcctgt ggtctcaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagca caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggtctgctg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctagtctgaag tgacgttatc agtcaaagct 420
gacttcctta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480

```

```

atttgc tcaa cctccggagg ttttctgag cctcacctct tctggctgga aaatggagaa 540
gaattaaacg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccacctcg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga ggagaaggaa tgagacactg 840
agaagggaaa gtgtacgccc tgtatga 867

```

<210> 155

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 155

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atgggctaca cacggaggca gggaaacatca ccatccaagt gtccatacct caatttcttt 60
cagctcttgg tgctagctag tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac gctgtcctgt ggtcacaatg ttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagata caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgggtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacctt gaaattccac cttctaacat tagaaggata 480
atttgc tcaa cctctggagg ttttccagag cctcacctct tctggttga aaatggggaa 540
gaattaaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccacctcg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cttactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacaccc tgtatga 867

```

<210> 156

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 156

```

atggggcaca cacggaggca gggaaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggettg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aggtggcaac gctgtcctgt ggtcacaatg ttctgttga agagctggca 180
caaactcgca tctactggca aaaggataag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagata caagaaccag accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcaggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgc tcaa cctctggagg ttttccagag cctcgctcgt cctggatgga agatggagaa 540
gaactaaatg ccatcagcac aacagtttcc caagatcctg gaactgagct ctgtactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaggtat 660

```



```

ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaaggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga ggcagagaga gaaagagcaa tgggagactg 840
agaagggaaa gtgtacacc tgtatga 867

```

```

<210> 157
<211> 867
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: Synthetic
      nucleotide sequence

```

```

<220>
<221> modified_base
<222> (599)
<223> A, T, C, G, other or unknown

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```

<400> 157
atgggccaca cacggaggca gggaaacatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgactaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
atttgtattc tggtctgctg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcctta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atgtgtcaa cctctggagg ttttcctgag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcagcac aacagtttcc caagatcctg aaactgagct ctatgctgnt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcgg taaatggaat ttttgtgata 780
tgctgcccga cctactgctt tgccccaagg tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtatga 867

```

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<210> 158
<211> 867
<212> DNA
<213> Artificial Sequence

```

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<220>
<223> Description of Artificial Sequence: Synthetic
      nucleotide sequence

```

```

<400> 158
atgggccaca cacggaggca gggaaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcta cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgattatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
atttgtattc tggtctgctg cccatctgac gagggcacat aggagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcctta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atgtgtcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540

```

```

gaattaaatg ccatcaaac aacagtttcc caagatcctg gaactgagct ctatactggt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtatga                                     867

```

<210> 159

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 159

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atggggccaca cacggaggca ggggaacatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggtctgctg cccatctgac gagggcacat acgggtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgcctaa cctctggagg tttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaaac aacagtttcc caagatcctg aaactgagct ctatgctggt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga                                     867

```

<210> 160

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 160

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atgggctaca cacggaggca ggggaacatca ccatccaagt gtccatacct caatttcttt 60
cagctcttgg tgctggctag tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
gttgtgattc tggtctgctg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgcctaa cctctggagg tttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaaac aacagtttcc caagatcctg gaactgagct ctatactggt 600
agcagcaaac tggatttcaa tatgacaacc aatgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720

```

```

gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgcc tgtatga 867

```

```

<210> 161
<211> 867
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: Synthetic
      nucleotide sequence

```

```

<400> 161
atgggctaca cacggaggca ggggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac gctgtcctgt ggtcacaatg tttctgtga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcctta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgcctaa cctctggagg tttccagag cctcgctcg cctggatgga agatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatgctgtt 600
agcagcaaac tggattttta tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttctgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgcc tgtatga 867

```

```

<210> 162
<211> 867
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: Synthetic
      nucleotide sequence

```

```

<400> 162
atgagccaca cacggaggca ggggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaag aagtggcaac gctgtcctgt ggtcacaatg tttctgctga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcctta cacctagtat aactgacttt gaaattccaa cttctaacat tagaaggata 480
atttgcctaa cctctggagg tttccagag cctcgctcg cctggatgga agatggagaa 540
gaactaaatg ccatcagcac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggattttca tatgacaact aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cccactgttt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgcc tgtatga 867

```

<210> 163  
 <211> 867  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

<400> 163  
 atggggccaca cacggaggca ggggaatatca ccatccaagt gtccatacct caagttcttt 60  
 cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120  
 gaagtgaaag aagtggcaac gctgtcctgt ggtctcaatg tttctgttga agagctggca 180  
 caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240  
 atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300  
 attgtgattc tggtctgctg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360  
 tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420  
 gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480  
 atttgctcaa cctctggagg ttttctgag cctcacctct cctggctgga aaatggagaa 540  
 gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600  
 agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660  
 ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720  
 gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780  
 tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840  
 agaagggaaa gtgtatgccc tgtatga 867

<210> 164  
 <211> 867  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

<400> 164  
 atgggctaca cacggaggca ggggaatatca ccatccaagt gtccatacct caagttcttt 60  
 cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120  
 gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgatga agagctggca 180  
 caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240  
 atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300  
 attgtgattc tggtctgctg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360  
 tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgacgttatc agtcaaagct 420  
 gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480  
 atttgctcaa cctctggagg ttttctgag cctcacctct cctggctgga aaatggggaa 540  
 gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600  
 agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660  
 ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720  
 gataacctgc tcccatccta ggccattacc ttaatctcag caaatggaat ttttgtgata 780  
 tgctgcctga cctactgctt tgcccgaga tgcagagaga gaaggaggaa tgagagattg 840  
 agaagggaaa gtatacacc tgtatga 867

<210> 165

<211> 867  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 165

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atggggtaca cacggaggca ggggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcat ctctgttcag gtgttatcca cgtgactaag 120
gaagtgaaag aagtggcaac gctgccctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atgtgtctaa cctctggagg ttttccagag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatgctgtt 600
agcagcaaac tggattttcaa tatgacaacc aaccacaact tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccactctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcttga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga 867
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<210> 166  
<211> 867  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 166

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atggggccaca cacggaggca ggggatatat ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcat ctctgttcag gtgttatcca catgactaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgctctgaag 360
tatgaaaaag atgctttcaa gcaggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atgtgtctaa cctctggagg ttttccagag cctcgccctg cctggatgga agatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggattttcaa tatgacagcc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccactctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcttga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtatga 867
```

<210> 167  
<211> 867  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 167

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atggggccaca cacggaggca ggggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg ggctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatgggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cctatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaagg acgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct tctggctgga aaatggggaa 540
gaattaaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctac tcccatcctg ggccattacc ttaatctcag taaatggaat tttcgtgata 780
tgctgctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgcc tgtatga 867
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<210> 168

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide séquence

<400> 168

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atgagccaca cacggaggca ggggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatgggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcggaaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480
atttgctcaa cctctggagg ttttctgag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
aataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgctga cctactgctt tgccccaaga tgcagagaga ggagaaggaa tgagacactg 840
agaagggaaa gtgtacaccc tgtatga 867
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<210> 169

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

# nucleotide sequence

<400> 169

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atgggccaca cacggaggca gggaacatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagagca caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccaa cttctaatat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccattctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagggaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgcc tgtatga
867

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<210> 170

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 170

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atgagccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctag tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gcctggggac 240
atgaatatat ggcccagagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgagg 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480
atttgctcaa cctccggagg ttttctgag cctcacctct cctggctgga aaatggggaa 540
gaattaaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccattctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cccactgctt cgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgcc tgtatag
867

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<210> 171

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 171

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atgagccaca cacggaggca ggggaatatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcat ttctgttcag gtgttatcca cgtgactaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctgggggc 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctactgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480
atgtgtcaa cctctggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcagcac aacagtttcc caagatcctg gaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgagctt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacaa ccaagcaaga gcattttcct 720
gataacctgc tcccactcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaag gtgtacgccc tgtatag 867

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<210> 172

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 172

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atgggctaca cacggaggca ggggaacatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgactaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atgtgtcaa cctctggagg ttttctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tgggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccactcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctgg cctactgctt tgccccaaga tgcagaggga gaaggaggaa tgagagattg 840
agaagggaag gtgtacgccc tgtatga 867

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<210> 173

<211> 867

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 173

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atgggccaca cacggaggca ggggaacatca ccatccaagt gtccgtacct caatttcttt 60
cagctcttgg tgctggcttg tctttctcac ttctgttcag gtgttatcca cgtgactaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180

```



```

caaaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggtctcgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgatgtttatc cgtcaaagct 420
gacttcctta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgcctca cccctggagg ttttccagag cctcgccctg cctggatgga agatggggaa 540
gaactaaatg ccatcagcac aacagtttcc caagatcctg gaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacaa ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaagggaa ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tggagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatag 867

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<210> 174  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<220>  
 <221> MOD\_RES  
 <222> (75)  
 <223> Variable amino acid

<400> 174  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Arg Lys Asp Ser Lys Met Xaa Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95  
 Met Asn Asp Asn Leu Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala  
 115 120 125  
 Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140  
 Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile

145		150		155		160
Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu						
	165		170		175	
Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val						
	180		185		190	
Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp						
	195		200		205	
Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly						
	210		215		220	
Glu Leu Leu Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu						
	225		230		235	240
Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly						
	245		250		255	
Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His						
	260		265		270	
Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr						
	275		280		285	
Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly						
	290		295		300	

<210> 175  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 175
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Cys Pro Cys
1 5 10 15
Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
20 25 30
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
35 40 45
Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
50 55 60
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65 70 75 80
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
 115 120 125  
 Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140  
 Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145 150 155 160  
 Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
 165 170 175  
 Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu  
 180 185 190  
 Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp  
 195 200 205  
 Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
 210 215 220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
 225 230 235 240  
 Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
 245 250 255  
 Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
 260 265 270  
 Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
 275 280 285  
 Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 176

<211> 310

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<221> MOD\_RES

<222> (310)

<223> Variable amino acid

<400> 176

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys

1	5	10	15
Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys	20	25	30
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val	35	40	45
Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Lys Leu Thr Ser Leu	50	55	60
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro	65	70	80
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp	85	90	95
Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp	100	105	110
Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala	115	120	125
Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp	130	135	140
Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile	145	150	160
Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu	165	170	175
Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val	180	185	190
Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp	195	200	205
Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly	210	215	220
Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu	225	230	240
Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly	245	250	255
Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Pro Ala Cys Arg His	260	265	270
Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr	275	280	285
Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Arg Ala Glu	290	295	300
Val Pro Ser Leu Ser Xaa			

305

310

&lt;210&gt; 177

&lt;211&gt; 303

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Synthetic peptide

&lt;400&gt; 177

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys
1				5					10					15	

Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys
			20					25					30		

Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val
	35						40					45			

Met	Leu	Ser	Cys	Asp	Tyr	Asn	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu
	50					55					60				

Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro
65					70					75					80

Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp
			85						90					95	

Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp
		100						105					110		

Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala
		115					120					125			

Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp
	130					135					140				

Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile
145					150					155					160

Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu
			165						170					175	

Tyr	Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Val
		180						185					190		

Ser	Gln	Asp	Pro	Gly	Thr	Glu	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp
		195					200					205			

Phe	Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly
	210					215					220				

Glu	Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu
225					230					235					240

Pro Pro Ile Asp Gln Leu Pro Phe Leu Val Ile Ile Pro Val Ser Gly  
245 250 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
260 265 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
275 280 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
290 295 300

<210> 178

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 178

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
1 5 10 15

Leu Trp Leu Pro Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
115 120 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
130 135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
145 150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
165 170 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val  
180 185 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp  
195 200 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
210 215 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
225 230 235 240

Pro Pro Ile Asp Gln Leu Pro Phe Arg Val Ile Ile Pro Val Ser Gly  
245 250 255

Ala Leu Val Leu Thr Ala Ile Val Leu Tyr Cys Leu Ala Cys Arg His  
260 265 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
275 280 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
290 295 300

<210> 179

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 179

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala

115	120	125
Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp 130 135 140		
Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile 145 150 155 160		
Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu 165 170 175		
Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val 180 185 190		
Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp 195 200 205		
Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly 210 215 220		
Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu 225 230 235 240		
Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly 245 250 255		
Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His 260 265 270		
Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr 275 280 285		
Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly 290 295 300		

<210> 180

<211> 302

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 180

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys 1 5 10 15
Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys 20 25 30
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val 35 40 45
Met Pro Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu 50 55 60



Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	65	70	75	80
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	85	90	95	
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	100	105	110	
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Val	Gln	Lys	Asn	Glu	Asn	Gly	Ser	Phe	115	120	125	
Arg	Arg	Glu	His	Leu	Thr	Ser	Val	Thr	Leu	Ser	Ile	Arg	Ala	Asp	Phe	130	135	140	
Pro	Val	Pro	Ser	Ile	Thr	Asp	Ile	Gly	His	Pro	Ala	Pro	Asn	Val	Lys	145	150	155	160
Arg	Ile	Arg	Cys	Ser	Ala	Ser	Gly	Gly	Phe	Pro	Glu	Pro	Arg	Leu	Ala	165	170	175	
Trp	Met	Glu	Asp	Gly	Glu	Glu	Leu	Asn	Ala	Val	Asn	Thr	Thr	Val	Asp	180	185	190	
Gln	Asp	Leu	Asp	Thr	Glu	Leu	Tyr	Ser	Val	Ser	Ser	Glu	Leu	Asp	Phe	195	200	205	
Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly	Glu	210	215	220	
Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu	Pro	225	230	235	240
Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly	Ala	245	250	255	
Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His	Val	260	265	270	
Ala	Arg	Trp	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr	Glu	275	280	285	
Arg	Leu	Ser	Pro	Ile	Tyr	Leu	Gly	Ser	Ala	Gln	Ser	Ser	Gly			290	295	300	

<210> 181

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 181

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys	1	5	10	15
Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys	20	25	30	
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val	35	40	45	
Met	Leu	Ser	Cys	Asp	Tyr	Asn	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	50	55	60	
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	65	70	75	80
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	85	90	95	
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	100	105	110	
Lys	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala	115	120	125	
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	130	135	140	
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile	145	150	155	160
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu	165	170	175	
Tyr	Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Val	180	185	190	
Ser	Gln	Asp	Pro	Gly	Thr	Glu	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp	195	200	205	
Phe	Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly	210	215	220	
Glu	Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu	225	230	235	240
Pro	Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly	245	250	255	
Ala	Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His	260	265	270	
Val	Ala	Arg	Trp	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr	275	280	285	
Glu	Arg	Leu	Ser	Pro	Ile	Tyr	Leu	Gly	Ser	Ala	Gln	Ser	Ser	Gly	290	295	300		

<210> 182  
 <211> 296  
 <212> PRT  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 182

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys	1	5	10	15
Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys	20	25	30	
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val	35	40	45	
Met	Leu	Ser	Cys	Asp	Tyr	Asn	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	50	55	60	
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	65	70	75	80
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	85	90	95	
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	100	105	110	
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala	115	120	125	
Tyr	Lys	Leu	Glu	His	Leu	Thr	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	130	135	140	
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile	145	150	155	160
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu	165	170	175	
Tyr	Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Leu	180	185	190	
Ser	Gln	Asp	Pro	Glu	Thr	Lys	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp	195	200	205	
Phe	Asn	Met	Thr	Ser	Asn	His	Ser	Phe	Leu	Cys	Leu	Val	Lys	Tyr	Gly	210	215	220	
Asp	Leu	Thr	Val	Ser	Gln	Thr	Phe	Tyr	Trp	Gln	Glu	Ser	Lys	Pro	Thr	225	230	235	240
Pro	Ser	Ala	Asn	Gln	His	Leu	Thr	Trp	Thr	Ile	Ile	Ile	Pro	Val	Ser				

	245		250		255
Ala Phe Gly Ile Ser Val Ile Ile	Ala Val Ile Leu Thr Cys Leu Thr				
260	265	270			
Cys Arg Asn Ala Ala Ile Arg Arg	Gln Arg Arg Glu Asn Glu Val Glu				
275	280	285			
Met Gln Ser Cys Ser Gln Ser Pro					
290	295				

<210> 183  
 <211> 296  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 183

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys																
1				5				10						15		
Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys																
			20				25						30			
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val																
		35					40					45				
Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu																
	50					55					60					
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro																
65					70				75							80
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp																
			85					90						95		
Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp																
		100					105						110			
Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala																
		115					120						125			
Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp																
	130					135				140						
Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile																
145				150				155							160	
Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu																
			165					170							175	
Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu																
		180					185							190		

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp  
195 200 205

Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly  
210 215 220

Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr  
225 230 235 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser  
245 250 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr  
260 265 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Lys  
275 280 285

Met Gln Ser Cys Ser Gln Ser Pro  
290 295

<210> 184

<211> 275

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 184

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
35 40 45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
100 105 110

Lys Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
115 120 125

Tyr Lys Leu Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp  
 130 135 140  
 Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val  
 145 150 155 160  
 Lys Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu  
 165 170 175  
 Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val  
 180 185 190  
 Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp  
 195 200 205  
 Phe Asn Ala Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
 210 215 220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
 225 230 235 240  
 Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Val Pro Val Ser Gly  
 245 250 255  
 Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
 260 265 270  
 Val Ala Arg  
 275

<210> 185  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 185  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp

85					90					95					
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp
			100					105					110		
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala
		115					120					125			
Tyr	Lys	Leu	Glu	His	Leu	Thr	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp
	130					135					140				
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile
145					150					155					160
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu
				165					170					175	
Tyr	Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Leu
		180						185					190		
Ser	Gln	Asp	Pro	Gly	Thr	Glu	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp
		195					200					205			
Phe	Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly
	210					215					220				
Glu	Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu
225					230					235					240
Pro	Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly
				245					250					255	
Ala	Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His
			260					265					270		
Val	Ala	Arg	Trp	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr
		275					280					285			
Glu	Arg	Leu	Ser	Pro	Ile	Tyr	Leu	Gly	Ser	Ala	Gln	Ser	Ser	Gly	
	290					295					300				

<210> 186

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 186

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys
1				5					10					15	

Leu	Trp	Pro	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys
			20					25					30		

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
           35                          40                          45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
           50                          55                          60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
           65                          70                          75                          80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
                           85                          90                          95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
                   100                          105                          110  
 Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
           115                          120                          125  
 Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
           130                          135                          140  
 Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
           145                          150                          155                          160  
 Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
                           165                          170                          175  
 Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val  
           180                          185                          190  
 Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp  
           195                          200                          205  
 Phe Asn Val Thr Asn Asn His Ser Ile Ala Cys Leu Ile Lys Tyr Gly  
           210                          215                          220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
           225                          230                          235                          240  
 Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
                           245                          250                          255  
 Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
           260                          265                          270  
 Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
           275                          280                          285  
 Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
           290                          295                          300

<210> 187.

<211> 303

<212> PRT

<213> Artificial Sequence



<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 187

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
35 40 45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
115 120 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
130 135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
145 150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
165 170 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val  
180 185 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp  
195 200 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
210 215 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
225 230 235 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
245 250 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
260 265 270

Gly Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
275 280 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
290 295 300

<210> 188

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 188

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
35 40 45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala  
115 120 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
130 135 140

Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val  
145 150 155 160

Lys Arg Ile Arg Cys Ser Ala Ser Gly Asp Phe Pro Glu Pro Arg Leu  
165 170 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val  
180 185 190

Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp  
195 200 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly

210	215	220
Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu		
225	230	235 240
Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly		
	245	250 255
Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His		
	260	265 270
Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr		
	275	280 285
Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly		
	290	295 300

<210> 189

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 189

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys		
1	5	10 15
Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys		
	20	25 30
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val		
	35	40 45
Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu		
	50	55 60
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro		
	65	70 75 80
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp		
	85	90 95
Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp		
	100	105 110
Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala		
	115	120 125
Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp		
	130	135 140
Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile		
	145	150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
165 170 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val  
180 185 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Gly  
195 200 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
210 215 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
225 230 235 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
245 250 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
260 265 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
275 280 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
290 295 300

<210> 190

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<221> MOD\_RES

<222> (276)

<223> Variable amino acid

<400> 190

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
35 40 45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro

65		70		75		80									
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp
			85						90					95	
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp
			100					105					110		
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala
		115					120					125			
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp
	130					135					140				
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile
145					150					155					160
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu
			165						170					175	
Tyr	Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Val
		180						185					190		
Ser	Gln	Asp	Pro	Gly	Thr	Glu	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp
		195					200					205			
Phe	Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly
	210					215					220				
Glu	Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu
225					230					235					240
Pro	Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly
			245						250					255	
Ala	Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His
		260						265					270		
Val	Ala	Arg	Xaa	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr
		275					280					285			
Glu	Arg	Leu	Ser	Pro	Ile	Tyr	Leu	Gly	Ser	Ala	Gln	Ser	Ser	Gly	
	290					295					300				

<210> 191

<211> 293

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 191

Met	Gly	His	Thr	Leu	Arg	Pro	Gly	Thr	Pro	Leu	Pro	Arg	Cys	Leu	His
1				5				10					15		

Leu Lys Leu Cys Leu Leu Leu Ala Leu Ala Gly Leu His Phe Ser Ser  
                   20                                  25                                  30  
 Gly Ile Ser Gln Val Thr Lys Ser Val Lys Glu Met Ala Ala Leu Ser  
                   35                                  40                                  45  
 Cys Asp Tyr Asn Ile Ser Ile Asp Glu Leu Ala Arg Met Arg Ile Tyr  
                   50                                  55                                  60  
 Trp Gln Lys Asp Gln Gln Met Val Leu Ser Ile Ile Ser Gly Gln Val  
                   65                                  70                                  75                                  80  
 Glu Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp Met Asn Asp  
                                   85                                  90                                  95  
 Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp Ser Gly Thr  
                   100                                  105                                  110  
 Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala Tyr Lys Pro  
                   115                                  120                                  125  
 Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp Phe Pro Val  
                   130                                  135                                  140  
 Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile Arg Arg Leu  
                   145                                  150                                  155                                  160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu Tyr Trp Leu  
                                   165                                  170                                  175  
 Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu Ser Gln Asp  
                   180                                  185                                  190  
 Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe Asn Met  
                   195                                  200                                  205  
 Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asp Leu Thr  
                   210                                  215                                  220  
 Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr Pro Ser Ala  
                   225                                  230                                  235                                  240  
 Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser Ala Phe Gly  
                                   245                                  250                                  255  
 Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr Cys Arg Asn  
                   260                                  265                                  270  
 Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu Met Gln Ser  
                   275                                  280                                  285  
 Cys Ser Gln Ser Pro  
                   290

<210> 192

<211> 301  
 <212> PRT  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 192

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys	1	5	10	15
Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys	20	25	30	
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val	35	40	45	
Met	Leu	Ser	Cys	Asp	Tyr	Asn	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	50	55	60	
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	65	70	75	80
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	85	90	95	
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Gln	Ala	Leu	Arg	Leu	Ser	Asp	100	105	110	
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala	115	120	125	
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	130	135	140	
Phe	Pro	Val	Pro	Thr	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile	Arg	Arg	145	150	155	160
Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu	Tyr	Trp	165	170	175	
Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Val	Ser	Gln	180	185	190	
Asp	Pro	Gly	Thr	Glu	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp	Phe	Asn	195	200	205	
Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly	Glu	Leu	210	215	220	
Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu	Pro	Pro	225	230	235	240
Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly	Ala	Leu	245	250	255	

Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val Ala  
260 265 270

Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu Arg  
275 280 285

Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
290 295 300

<210> 193  
<211> 303  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 193  
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
115 120 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
130 135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
145 150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
165 170 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu  
180 185 190

Ser Gln Asp Pro Glu Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp



195	200	205
Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly		
210	215	220
Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu		
225	230	235 240
Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly		
	245	250 255
Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His		
	260	265 270
Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr		
	275	280 285
Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly		
290	295	300

<210> 194

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 194

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys		
1	5	10 15
Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys		
	20	25 30
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val		
	35	40 45
Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu		
	50	55 60
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro		
	65	70 75 80
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp		
	85	90 95
Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp		
	100	105 110
Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala		
	115	120 125
Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp		
	130	135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145 150 155 160  
 Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
 165 170 175  
 Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val  
 180 185 190  
 Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp  
 195 200 205  
 Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
 210 215 220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
 225 230 235 240  
 Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
 245 250 255  
 Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
 260 265 270  
 Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
 275 280 285  
 Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 195

<211> 302

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 195

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80

Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	85	90	95
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	100	105	110
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Val	Gln	Lys	Asn	Glu	Asn	Gly	Ser	Phe	115	120	125
Arg	Arg	Glu	His	Leu	Thr	Ser	Val	Thr	Leu	Ser	Ile	Arg	Ala	Asp	Phe	130	135	140
Pro	Val	Pro	Ser	Ile	Thr	Asp	Ile	Gly	His	Pro	Ala	Pro	Asn	Val	Lys	145	150	155
Arg	Ile	Arg	Cys	Ser	Ala	Ser	Gly	Asp	Phe	Pro	Glu	Pro	Arg	Leu	Ala	165	170	175
Trp	Met	Glu	Asp	Gly	Glu	Glu	Leu	Asn	Ala	Val	Asn	Thr	Thr	Val	Asp	180	185	190
Gln	Asp	Leu	Asp	Thr	Glu	Leu	Tyr	Ser	Val	Ser	Ser	Glu	Leu	Asp	Phe	195	200	205
Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly	Glu	210	215	220
Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu	Pro	225	230	235
Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Leu	Val	Ser	Gly	Ala	245	250	255
Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His	Val	260	265	270
Ala	Arg	Trp	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr	Glu	275	280	285
Arg	Leu	Ser	Pro	Ile	Tyr	Leu	Gly	Ser	Ala	Gln	Ser	Ser	Gly			290	295	300

<210> 196

<211> 300

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 196

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys	1	5	10	15
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	---	---	----	----

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys

20					25					30						
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val	
35					40					45						
Met	Leu	Ser	Cys	Asp	Tyr	Ser	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	
50					55					60						
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	
65					70					75					80	
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	
85					90					95						
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	
100					105					110						
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala	
115					120					125						
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	
130					135					140						
Phe	Pro	Val	Pro	Ser	Ile	Thr	Asp	Ile	Gly	His	Pro	Ala	Pro	Asn	Val	
145					150					155					160	
Lys	Arg	Ile	Arg	Cys	Ser	Ala	Ser	Gly	Asp	Phe	Pro	Glu	Pro	Arg	Leu	
165					170					175						
Ala	Trp	Met	Glu	Asp	Gly	Glu	Glu	Leu	Asn	Ala	Val	Asn	Thr	Thr	Val	
180					185					190						
Leu	Asp	Thr	Glu	Leu	Tyr	Ser	Val	Ser	Ser	Glu	Leu	Asp	Phe	Asn	Val	
195					200					205						
Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly	Glu	Leu	Ser	
210					215					220						
Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu	Pro	Pro	Ile	
225					230					235					240	
Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly	Ala	Leu	Val	
245					250					255						
Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His	Val	Ala	Arg	
260					265					270						
Trp	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr	Glu	Arg	Leu	
275					280					285						
Ser	Pro	Ile	Tyr	Leu	Gly	Ser	Ala	Gln	Pro	Ser	Gly					
290					295					300						

<210> 197  
 <211> 303  
 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 197

Met	Gly	His	Thr	Met	Glu	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys	
1				5					10						15	
Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys	
			20					25					30			
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val	
		35					40					45				
Met	Leu	Ser	Cys	Asp	Tyr	Asn	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	
	50					55					60					
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	
65					70					75					80	
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	
			85						90					95		
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	
			100					105					110			
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala	
		115					120					125				
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	
	130					135					140					
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile	
145					150					155					160	
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu	
			165						170					175		
Tyr	Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Leu	
		180						185					190			
Ser	Gln	Asp	Pro	Glu	Thr	Glu	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp	
		195					200					205				
Phe	Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly	
	210					215					220					
Glu	Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu	
225					230					235					240	
Pro	Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly	
			245						250					255		
Ala	Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His	
		260						265					270			

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
 275 280 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 198

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 198

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
 115 120 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145 150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu  
 165 170 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val  
 180 185 190

Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp  
 195 200 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
 210 215 220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
 225 230 235 240  
 Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
 245 250 255  
 Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
 260 265 270  
 Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
 275 280 285  
 Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 199  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 199  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
 115 120 125  
 Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140  
 Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile

145		150		155		160
Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu						
	165			170		175
Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu						
	180			185		190
Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp						
	195			200		205
Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly						
	210			215		220
Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu						
	225			230		235
Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly						
	245			250		255
Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His						
	260			265		270
Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr						
	275			280		285
Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly						
	290			295		300

<210> 200  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 200
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
1 5 10 15
Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
20 25 30
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
35 40 45
Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
50 55 60
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65 70 75 80
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
85 90 95



Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala  
115 120 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
130 135 140

Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val  
145 150 155 160

Lys Arg Ile Arg Cys Ser Ala Ser Gly Asp Phe Pro Glu Pro Arg Leu  
165 170 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val  
180 185 190

Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp  
195 200 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
210 215 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
225 230 235 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
245 250 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
260 265 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
275 280 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
290 295 300

<210> 201

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 201

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
           35                          40                          45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
       50                          55                          60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
       65                          70                          75                          80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
                           85                          90                          95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
                   100                          105                          110  
 Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala  
       115                          120                          125  
 Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
       130                          135                          140  
 Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val  
       145                          150                          155                          160  
 Lys Arg Ile Arg Cys Ser Ala Ser Gly Asp Phe Pro Glu Pro Arg Leu  
                   165                          170                          175  
 Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val  
                   180                          185                          190  
 Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp  
           195                          200                          205  
 Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
       210                          215                          220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
       225                          230                          235                          240  
 Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
                   245                          250                          255  
 Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
                   260                          265                          270  
 Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
           275                          280                          285  
 Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
       290                          295                          300

<210> 202

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 202

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys	
1				5					10						15	
Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys	
			20					25					30			
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val	
		35					40					45				
Met	Leu	Ser	Cys	Asp	Tyr	Asn	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	
	50					55					60					
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	
65					70					75					80	
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	
			85						90					95		
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	
			100					105					110			
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala	
	115						120					125				
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	
	130					135					140					
Phe	Pro	Val	Pro	Ser	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile	
145					150					155					160	
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu	
			165						170					175		
Tyr	Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Val	
		180						185					190			
Ser	Gln	Asp	Pro	Gly	Thr	Glu	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp	
		195					200					205				
Phe	Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly	
	210					215					220					
Glu	Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu	
225					230					235					240	
Pro	Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly	
			245						250					255		
Ala	Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His	
		260						265					270			
Val	Ala	Arg	Trp	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr	

275                      280                      285  
 Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290                      295                      300  
  
 <210> 203  
 <211> 302  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Synthetic  
          peptide  
  
 <400> 203  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
   1                      5                      10                      15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
                     20                      25                      30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
                     35                      40                      45  
 Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
                     50                      55                      60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
                     65                      70                      75                      80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Phe Pro Asp  
                     85                      90                      95  
 Ile Ile Asn Asn Leu Ser Leu Met Ile Leu Ala Leu Arg Leu Ser Asp  
                     100                      105                      110  
 Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe  
                     115                      120                      125  
 Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe  
                     130                      135                      140  
 Pro Val Ser Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys  
                     145                      150                      155                      160  
 Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala  
                     165                      170                      175  
 Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp  
                     180                      185                      190  
 Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe  
                     195                      200                      205  
 Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu  
                     210                      215                      220

Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro  
 225 230 235 240  
 Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala  
 245 250 255  
 Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val  
 260 265 270  
 Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu  
 275 280 285  
 Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 204  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 204  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
 115 120 125  
 Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140  
 Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val  
 145 150 155 160

Lys Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu  
 165 170 175  
 Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val  
 180 185 190  
 Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp  
 195 200 205  
 Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
 210 215 220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
 225 230 235 240  
 Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
 245 250 255  
 Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
 260 265 270  
 Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
 275 280 285  
 Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 205

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 205

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Asp Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp

100	105	110
Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala		
115	120	125
Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp		
130	135	140
Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile		
145	150	155 160
Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu		
165	170	175
Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val		
180	185	190
Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp		
195	200	205
Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly		
210	215	220
Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu		
225	230	235 240
Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly		
245	250	255
Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His		
260	265	270
Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr		
275	280	285
Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly		
290	295	300

<210> 206

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 206

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
115 120 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
130 135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
145 150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
165 170 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu  
180 185 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp  
195 200 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
210 215 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
225 230 235 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
245 250 255

Ala Leu Val Leu Thr Ala Ala Val Leu Tyr Cys Leu Ala Cys Arg His  
260 265 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
275 280 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
290 295 300

<210> 207

<211> 300

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic



peptide

<400> 207

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys	1	5	10	15
Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys	20	25	30	
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val	35	40	45	
Met	Leu	Ser	Cys	Asp	Tyr	Ser	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	50	55	60	
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	65	70	75	80
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	85	90	95	
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	100	105	110	
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala	115	120	125	
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	130	135	140	
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile	145	150	155	160
Arg	Arg	Leu	Ile	Cys	Ser	Gly	Phe	Pro	Arg	Pro	His	Leu	Tyr	Trp	Leu	165	170	175	
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Val	Ser	Gln	Asp	180	185	190	
Pro	Gly	Thr	Glu	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp	Phe	Asn	Val	195	200	205	
Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly	Glu	Leu	Ser	210	215	220	
Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu	Pro	Pro	Ile	225	230	235	240
Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly	Ala	Leu	Val	245	250	255	
Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His	Val	Ala	Arg	260	265	270	
Trp	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr	Glu	Arg	Leu	275	280	285	

Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 208  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 208  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Lys Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
 115 120 125  
 Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140  
 Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145 150 155 160  
 Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
 165 170 175  
 Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val  
 180 185 190  
 Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp  
 195 200 205  
 Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
 210 215 220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu



Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val  
180 185 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp  
195 200 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
210 215 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
225 230 235 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
245 250 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
260 265 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
275 280 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
290 295 300

<210> 210  
<211> 304  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 210  
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala  
 115 120 125  
 Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140  
 Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val  
 145 150 155 160  
 Lys Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu  
 165 170 175  
 Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val  
 180 185 190  
 Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp  
 195 200 205  
 Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly  
 210 215 220  
 Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr  
 225 230 235 240  
 Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser  
 245 250 255  
 Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr  
 260 265 270  
 Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Gly Lys  
 275 280 285  
 Cys Lys Val Leu Ser Val Ser Ile Gly Thr Lys Leu Lys Phe Asn Arg  
 290 295 300

<210> 211  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 211  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu

50	55	60
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro 65 70 75 80		
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp 85 90 95		
Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp 100 105 110		
Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Pro Asp Leu Lys Gly Ala 115 120 125		
Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp 130 135 140		
Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val 145 150 155 160		
Lys Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu 165 170 175		
Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val 180 185 190		
Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp 195 200 205		
Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly 210 215 220		
Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu 225 230 235 240		
Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly 245 250 255		
Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His 260 265 270		
Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr 275 280 285		
Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly 290 295 300		

<210> 212  
 <211> 296  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 212

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys	
1				5					10						15	
Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys	
			20					25					30			
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val	
	35						40					45				
Met	Leu	Ser	Cys	Asp	Tyr	Ser	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	
	50					55					60					
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	
65					70					75					80	
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	
			85						90						95	
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	
			100					105					110			
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala	
	115						120					125				
Tyr	Lys	Leu	Glu	His	Leu	Thr	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	
	130					135					140					
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile	
145					150					155					160	
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu	
			165						170					175		
Tyr	Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Leu	
		180						185					190			
Ser	Gln	Asp	Pro	Glu	Thr	Lys	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp	
	195						200					205				
Phe	Asn	Met	Thr	Ser	Asn	His	Ser	Phe	Leu	Cys	Leu	Val	Lys	Tyr	Gly	
	210					215					220					
Asp	Leu	Thr	Val	Ser	Gln	Ser	Phe	Tyr	Trp	Gln	Glu	Ser	Lys	Pro	Thr	
225					230					235					240	
Pro	Ser	Ala	Asn	Gln	His	Leu	Thr	Trp	Thr	Ile	Ile	Ile	Pro	Val	Ser	
			245						250					255		
Ala	Phe	Gly	Ile	Ser	Val	Ile	Ile	Ala	Val	Ile	Leu	Thr	Cys	Leu	Thr	
		260						265					270			
Cys	Arg	Asn	Ala	Ala	Ile	Arg	Arg	Gln	Arg	Arg	Glu	Asn	Glu	Val	Glu	
	275						280					285				
Met	Gln	Ser	Cys	Ser	Gln	Ser	Pro									
	290					295										

<210> 213  
 <211> 302  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 213  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
     1                    5                    10                    15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
                     20                    25                    30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
             35                    40                    45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
             50                    55                    60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
             65                    70                    75                    80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
                     85                    90                    95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
                     100                    105                    110  
 Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe  
             115                    120                    125  
 Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe  
             130                    135                    140  
 Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys  
             145                    150                    155                    160  
 Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala  
                     165                    170                    175  
 Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp  
                     180                    185                    190  
 Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe  
             195                    200                    205  
 Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu  
             210                    215                    220  
 Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro  
             225                    230                    235                    240



Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala  
245 250 255

Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val  
260 265 270

Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu  
275 280 285

Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
290 295 300

<210> 214

<211> 296

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 214

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Thr Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Pro Ser Asp  
100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
115 120 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
130 135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
145 150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
165 170 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu

180	185	190
Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp		
195	200	205
Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly		
210	215	220
Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr		
225	230	235
Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser		
245	250	255
Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr		
260	265	270
Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu		
275	280	285
Met Gln Ser Cys Ser Gln Ser Pro		
290	295	

<210> 215

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 215

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys		
1	5	10
Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys		
20	25	30
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val		
35	40	45
Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu		
50	55	60
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro		
65	70	75
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp		
85	90	95
Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp		
100	105	110
Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala		
115	120	125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140  
 Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145 150 155 160  
 Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
 165 170 175  
 Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu  
 180 185 190  
 Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp  
 195 200 205  
 Phe Asn Val Thr Asn Asn Arg Ser Ile Val Cys Leu Ile Lys Tyr Gly  
 210 215 220  
 Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
 225 230 235 240  
 Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly  
 245 250 255  
 Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His  
 260 265 270  
 Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
 275 280 285  
 Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 216

<211> 296

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 216

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
115 120 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
130 135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
145 150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
165 170 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val  
180 185 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp  
195 200 205

Phe Asn Thr Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly  
210 215 220

Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr  
225 230 235 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser  
245 250 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr  
260 265 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu  
275 280 285

Met Gln Ser Cys Ser Gln Ser Pro  
290 295

<210> 217

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 217

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys

1	5	10	15
Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys	20	25	30
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val	35	40	45
Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu	50	55	60
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro	65	70	75
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp	85	90	95
Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp	100	105	110
Lys Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala	115	120	125
Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp	130	135	140
Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile	145	150	155
Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu	165	170	175
Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val	180	185	190
Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp	195	200	205
Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly	210	215	220
Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu	225	230	235
Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly	245	250	255
Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His	260	265	270
Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr	275	280	285
Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly	290	295	300

<210> 218  
 <211> 296  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 218  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala  
 115 120 125  
 Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140  
 Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145 150 155 160  
 Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
 165 170 175  
 Tyr Trp Leu Glu Asn Gly Lys Glu Leu Asn Ala Thr Asn Thr Thr Leu  
 180 185 190  
 Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp  
 195 200 205  
 Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly  
 210 215 220  
 Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr  
 225 230 235 240  
 Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser  
 245 250 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr  
260 265 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu  
275 280 285

Met Gln Ser Cys Ser Gln Ser Pro  
290 295

<210> 219  
<211> 302  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 219  
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
100 105 110

Ser Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe  
115 120 125

Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe  
130 135 140

Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys  
145 150 155 160

Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala  
165 170 175

Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp  
180 185 190

Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe  
 195 200 205  
 Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu  
 210 215 220  
 Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro  
 225 230 235 240  
 Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala  
 245 250 255  
 Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val  
 260 265 270  
 Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu  
 275 280 285  
 Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 220

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 220

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Arg Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala  
 115 120 125  
 Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp



130		135		140
Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile				
145		150		155 160
Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu				
	165		170	175
Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu				
	180		185	190
Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp				
	195	200		205
Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly				
210		215		220
Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu				
225		230		235 240
Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly				
	245		250	255
Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His				
	260		265	270
Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr				
	275		280	285
Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly				
290		295		300

<210> 221  
 <211> 293  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 221
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
1 5 10 15
Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
20 25 30
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
35 40 45
Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
50 55 60
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
                             85                            90                            95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
                             100                            105                            110  
 Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala  
                             115                            120                            125  
 Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
                             130                            135                            140  
 Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145                            150                            155                            160  
 Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
                             165                            170                            175  
 Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu  
                             180                            185                            190  
 Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp  
                             195                            200                            205  
 Phe Asn Met Thr Ser Asn Leu Cys Leu Val Lys Tyr Gly Asp Leu Thr  
                             210                            215                            220  
 Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr Pro Ser Ala  
 225                            230                            235                            240  
 Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser Ala Phe Gly  
                             245                            250                            255  
 Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr Cys Arg Asn  
                             260                            265                            270  
 Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu Met Gln Ser  
                             275                            280                            285  
 Cys Ser Gln Ser Pro  
                             290

<210> 222  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
                             peptide

<400> 222  
 Met Ser His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr  
   1                            5                            10                            15

Leu Lys Phe Phe Gln Phe Leu Val Leu Ala Ser Leu Ser His Phe Cys  
 20 25 30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45  
 Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60  
 Tyr Trp Gln Lys Gly Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
 65 70 75 80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
 85 90 95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
 100 105 110  
 Thr Tyr Glu Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125  
 Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140  
 Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
 145 150 155 160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu  
 165 170 175  
 Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp  
 180 185 190  
 Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met  
 195 200 205  
 Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
 225 230 235 240  
 Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
 245 250 255  
 Ile Phe Val Ile Cys Cys Leu Thr His Cys Phe Ala Pro Arg Cys Arg  
 260 265 270  
 Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Ala Arg Pro Val  
 275 280 285

<210> 223

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 223

Met	Gly	Tyr	Thr	Arg	Arg	Gln	Gly	Thr	Ser	Pro	Ser	Lys	Cys	Pro	Tyr	
1				5					10					15		
Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Ser	Leu	Ser	His	Phe	Cys	
			20					25					30			
Ser	Gly	Val	Ile	His	Val	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu	
		35					40				45					
Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Pro	Ile	
	50					55					60					
Tyr	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp	
65					70					75					80	
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	
				85					90					95		
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	
			100					105					110			
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg	
		115					120					125				
Glu	His	Leu	Ala	Glu	Val	Met	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	
	130					135					140					
Pro	Ser	Ile	Thr	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile	
145					150					155					160	
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Phe	Trp	Leu	
				165					170					175		
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp	
		180						185					190			
Pro	Glu	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	
		195					200					205				
Thr	Thr	Asn	Arg	Ser	Phe	Val	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	
	210					215					220					
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	
225					230					235					240	
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Ala	Asn	Gly	
				245					250					255		
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Arg	Phe	Ala	Pro	Arg	Cys	Arg	
		260						265					270			
Glu	Arg	Arg	Arg	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	Cys	Pro	Val	

275

280

285

&lt;210&gt; 224

&lt;211&gt; 288

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Synthetic peptide

&lt;400&gt; 224

Met	Gly	Tyr	Thr	Arg	Arg	Gln	Gly	Ile	Ser	Pro	Ser	Lys	Cys	Pro	Tyr
1				5					10					15	

Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Ser	Leu	Ser	His	Phe	Cys
			20					25					30		

Ser	Gly	Val	Ile	His	Val	Thr	Lys	Lys	Val	Lys	Glu	Val	Ala	Thr	Leu
		35					40					45			

Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile
	50					55					60				

His	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp
65					70					75					80

Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr
				85					90					95	

Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly
		100						105					110		

Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg
		115					120					125			

Glu	His	Leu	Ala	Glu	Val	Met	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr
	130					135					140				

Pro	Ser	Ile	Ser	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile
145					150					155					160

Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu
				165					170					175	

Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp
		180					185						190		

Pro	Gly	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met
		195					200					205			

Thr	Thr	Asp	Arg	Ser	Phe	Val	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg
	210					215					220				

Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro
225					230					235					240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
245 250 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
260 265 270

Glu Arg Arg Arg Asn Gly Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
275 280 285

<210> 225  
<211> 288  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 225  
Met Ser His Thr Gln Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr  
1 5 10 15

Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys  
20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
50 55 60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
100 105 110

Thr Tyr Glu Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg  
115 120 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr  
130 135 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu  
165 170 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Val Ser Gln Asp  
180 185 190

Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met  
195 200 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg  
210 215 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro  
225 230 235 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
245 250 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
260 265 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val His Pro Val  
275 280 285

<210> 226  
<211> 288  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 226  
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr  
1 5 10 15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Leu Cys  
20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
50 55 60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
100 105 110

Thr Tyr Glu Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg  
115 120 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr  
130 135 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile

145		150		155		160
Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu						
	165			170		175
Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp						
	180			185		190
Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met						
	195			200		205
Thr Ala Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg						
	210			215		220
Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro						
225		230			235	240
Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly						
	245			250		255
Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Gly Cys Arg						
	260			265		270
Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val						
	275			280		285

<210> 227

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 227

Met Ser His Ile Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr															
1				5					10						15
Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys															
			20						25						30
Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu															
			35						40						45
Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile															
			50						55						60
Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp															
			65						70						75
															80
Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr															
									85						90
															95
Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly															
			100												110



Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125  
 Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140  
 Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
 145 150 155 160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met  
 165 170 175  
 Glu Asp Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp  
 180 185 190  
 Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met  
 195 200 205  
 Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
 225 230 235 240  
 Asp Asn Leu Phe Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
 245 250 255  
 Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
 260 265 270  
 Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
 275 280 285

<210> 228

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 228

Met Ser His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15  
 Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys  
 20 25 30  
 Ser Gly Val Ile His Met Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45  
 Ser Cys Gly Pro Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60

Tyr	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp	
65					70					75					80	
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	
				85					90					95		
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	
			100					105					110			
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg	
		115					120					125				
Glu	His	Leu	Ala	Glu	Val	Thr	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	
	130					135					140					
Pro	Ser	Ile	Ser	Asp	Phe	Glu	Ile	Pro	Thr	Ser	Asn	Ile	Arg	Arg	Ile	
145					150					155					160	
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu	
				165					170					175		
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp	
		180						185					190			
Pro	Gly	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	
		195					200					205				
Thr	Thr	Asn	His	Ser	Phe	Met	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	
	210					215					220					
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	
225					230					235					240	
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly	
				245					250					255		
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	His	Cys	Phe	Ala	Pro	Arg	Cys	Arg	
		260					265						270			
Glu	Arg	Arg	Arg	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	Cys	Pro	Val	
	275						280					285				

<210> 229

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 229

Met	Ser	His	Thr	Arg	Arg	Gln	Gly	Ile	Ser	Ser	Ser	Lys	Cys	Pro	Tyr	
1				5				10						15		

Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Cys	Leu	Ser	His	Phe	Cys	
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	--

20					25					30						
Ser	Gly	Val	Ile	His	Val	Thr	Lys	Lys	Val	Lys	Glu	Val	Ala	Thr	Leu	
35					40					45						
Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile	
50					55					60						
Tyr	Trp	Gln	Lys	Gly	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp	
65					70					75					80	
Met	Asn	Ile	Trp	Pro	Glu	Cys	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	
85					90					95						
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	
100					105					110						
Thr	Tyr	Glu	Cys	Ala	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg	
115					120					125						
Glu	His	Leu	Ala	Glu	Val	Thr	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	
130					135					140						
Pro	Ser	Ile	Ser	Asp	Phe	Glu	Ile	Pro	Thr	Ser	Asn	Ile	Arg	Arg	Ile	
145					150					155					160	
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Phe	Trp	Leu	
165					170					175						
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Ala	Ser	Gln	Asp	
180					185					190						
Pro	Glu	Thr	Glu	Leu	Tyr	Ala	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	
195					200					205						
Thr	Thr	Asn	His	Ser	Phe	Met	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	
210					215					220						
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	
225					230					235					240	
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly	
245					250					255						
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg	
260					265					270						
Glu	Arg	Lys	Ser	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	Arg	Pro	Val	
275					280					285						

<210> 230

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 230

Met	Gly	Tyr	Thr	Arg	Arg	Gln	Gly	Thr	Ser	Pro	Ser	Glu	Cys	Pro	Tyr	1	5	10	15
Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Gly	Leu	Ser	His	Phe	Cys	20	25	30	
Ser	Gly	Val	Ile	His	Met	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu	35	40	45	
Ser	Cys	Gly	Leu	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile	50	55	60	
His	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp	65	70	75	80
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	85	90	95	
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	100	105	110	
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg	115	120	125	
Glu	His	Leu	Ala	Glu	Val	Met	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	130	135	140	
Pro	Ser	Ile	Ser	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile	145	150	155	160
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu	165	170	175	
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp	180	185	190	
Pro	Glu	Thr	Gly	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	195	200	205	
Thr	Thr	Asn	His	Ser	Phe	Met	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	210	215	220	
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	225	230	235	240
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly	245	250	255	
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg	260	265	270	
Glu	Arg	Arg	Arg	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	Arg	Pro	Val	275	280	285	

<210> 231  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 231

Met	Ser	His	Thr	Arg	Arg	Gln	Gly	Ile	Ser	Pro	Ser	Lys	Cys	Pro	Tyr	1	5	10	15
Leu	Asn	Phe	Phe	Arg	Leu	Leu	Val	Leu	Ala	Ser	Leu	Ser	His	Phe	Cys	20	25	30	
Ser	Gly	Val	Ile	His	Val	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu	35	40	45	
Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile	50	55	60	
His	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp	65	70	75	80
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	85	90	95	
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	100	105	110	
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg	115	120	125	
Glu	His	Leu	Ala	Glu	Val	Thr	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	130	135	140	
Pro	Ser	Ile	Thr	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile	145	150	155	160
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu	165	170	175	
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp	180	185	190	
Pro	Gly	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	195	200	205	
Thr	Ala	Asn	His	Ser	Phe	Val	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	210	215	220	
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	225	230	235	240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly  
245 250 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
260 265 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
275 280 285

<210> 232

<211> 300

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<221> MOD\_RES

<222> (298)

<223> Variable amino acid

<400> 232

Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr  
1 5 10 15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys  
20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
50 55 60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
65 70 75 80

Met Asn Ile Trp Pro Glu His Lys Asn Arg Thr Ile Phe Asp Ile Thr  
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
100 105 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
115 120 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
130 135 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu  
165 170 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp  
180 185 190

Pro Glu Thr Glu Leu Tyr Thr Gly Ser Ser Lys Leu Asp Phe Asn Met  
195 200 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg  
210 215 220

Val Asn Gln Thr Phe Ser Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
225 230 235 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly  
245 250 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
260 265 270

Glu Arg Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val  
275 280 285

Trp Gly Thr Lys Leu Lys Phe Lys Pro Xaa Ile Ser  
290 295 300

<210> 233

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 233

Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr  
1 5 10 15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys  
20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
35 40 45

Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
50 55 60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
65 70 75 80

Met Asn Ile Trp Pro Glu His Lys Asn Arg Thr Ile Phe Asp Ile Thr  
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
100 105 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125  
 Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140  
 Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
 145 150 155 160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu  
 165 170 175  
 Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp  
 180 185 190  
 Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met  
 195 200 205  
 Thr Ala Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
 225 230 235 240  
 Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
 245 250 255  
 Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
 260 265 270  
 Glu Arg Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val  
 275 280 285

<210> 234  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 234  
 Met Gly Tyr Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15  
 Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys  
 20 25 30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45  
 Ser Cys Gly His Asn Val Pro Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60  
 Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp



65		70		75		80
Met Asn Ile Trp	Pro Glu Tyr Lys	Asn Arg Thr	Ile Phe Asp	Ile Thr		
	85		90	95		
Asn Asn Leu Ser	Ile Val Ile Leu	Ala Leu Arg	Pro Ser Asp	Glu Gly		
	100	105	110			
Thr Tyr Gly Cys	Val Val Leu Glu	Tyr Glu Lys	Asp Ala Phe	Lys Arg		
	115	120	125			
Glu His Leu Ala	Glu Val Met Leu	Ser Val Lys	Ala Asp Phe	Pro Thr		
	130	135	140			
Pro Ser Ile Thr	Asp Leu Glu Ile	Pro Pro Ser	Asn Ile Arg	Arg Ile		
	145	150	155	160		
Ile Cys Ser Thr	Ser Gly Gly Phe	Pro Glu Pro	His Leu Phe	Trp Leu		
	165	170	175			
Glu Asn Gly Glu	Glu Leu Asn Ala	Ile Asn Thr	Thr Ala Ser	Gln Asp		
	180	185	190			
Pro Glu Thr Glu	Leu Tyr Ala Val	Ser Ser Lys	Leu Asp Phe	Asn Met		
	195	200	205			
Thr Thr Asn His	Ser Phe Met Cys	Leu Ile Lys	Tyr Gly His	Leu Arg		
	210	215	220			
Val Asn Gln Thr	Phe Asn Trp Asn	Thr Pro Lys	Gln Glu His	Phe Pro		
	225	230	235	240		
Asp Asn Leu Leu	Pro Ser Trp Ala	Ile Thr Leu	Ile Ser Ala	Asn Gly		
	245	250	255			
Ile Phe Val Ile	Cys Cys Leu Thr	Tyr Cys Phe	Ala Pro Arg	Cys Arg		
	260	265	270			
Glu Arg Arg Arg	Asn Glu Arg Leu	Arg Arg Glu	Ser Val His	Pro Val		
	275	280	285			

<210> 235  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 235  
 Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15  
 Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys  
 20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
50 55 60

Tyr Trp Gln Lys Asp Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Gln Thr Ile Phe Asp Ile Thr  
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
100 105 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Gln  
115 120 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
130 135 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met  
165 170 175

Glu Asp Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Val Ser Gln Asp  
180 185 190

Pro Gly Thr Glu Leu Cys Thr Val Ser Ser Lys Leu Asp Phe Asn Met  
195 200 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Arg Tyr Gly His Leu Arg  
210 215 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
225 230 235 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Lys Gly  
245 250 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Gly Arg  
260 265 270

Glu Arg Lys Ser Asn Gly Arg Leu Arg Arg Glu Ser Val His Pro Val  
275 280 285

<210> 236

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

peptide

<220>

<221> MOD\_RES

<222> (200)

<223> Variable amino acid

<400> 236

Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr  
1 5 10 15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys  
20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
50 55 60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
100 105 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
115 120 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
130 135 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu  
165 170 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Val Ser Gln Asp  
180 185 190

Pro Glu Thr Glu Leu Tyr Ala Xaa Ser Ser Lys Leu Asp Phe Asn Met  
195 200 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg  
210 215 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
225 230 235 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
245 250 255

Ile Phe Val Ile Cys Cys Pro Thr Tyr Cys Phe Ala Pro Arg Cys Arg

260	265	270
Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val		
275	280	285

<210> 237  
 <211> 287  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 237  
 Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr  
   1                  5                  10                  15  
 Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys  
                   20                  25                  30  
 Ser Gly Val Ile Tyr Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
           35                  40                  45  
 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
       50                  55                  60  
 Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Ile Met Met Ser Gly Asp  
   65                  70                  75                  80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
                   85                  90                  95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
       100                  105                  110  
 Thr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu  
       115                  120                  125  
 His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro  
       130                  135                  140  
 Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile Ile  
   145                  150                  155                  160  
 Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu Glu  
           165                  170                  175  
 Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro  
       180                  185                  190  
 Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met Thr  
       195                  200                  205  
 Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val  
       210                  215                  220

Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro Asp  
 225 230 235 240

Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly Ile  
 245 250 255

Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg Glu  
 260 265 270

Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val  
 275 280 285

<210> 238  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 238  
 Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys  
 20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
 65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
 85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
 100 105 110

Thr Tyr Gly Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
 145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu  
 165 170 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp  
 180 185 190  
 Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met  
 195 200 205  
 Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220  
 Ala Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
 225 230 235 240  
 Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
 245 250 255  
 Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
 260 265 270  
 Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
 275 280 285

<210> 239  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 239  
 Met Gly Tyr Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15  
 Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys  
 20 25 30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45  
 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60  
 His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
 65 70 75 80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
 85 90 95  
 Asn Asn Leu Ser Val Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
 100 105 110  
 Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125  
 Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr

130	135	140
Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile		
145	150	155 160
Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu		
	165	170 175
Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp		
	180	185 190
Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met		
	195	200 205
Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg		
	210	215 220
Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro		
225	230	235 240
Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly		
	245	250 255
Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg		
	260	265 270
Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val		
	275	280 285

<210> 240

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 240

Met Gly Tyr Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr		
1	5	10 15
Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys		
	20	25 30
Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu		
	35	40 45
Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile		
	50	55 60
His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp		
	65	70 75 80
Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr		
	85	90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
 100 105 110  
 Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125  
 Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140  
 Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
 145 150 155 160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met  
 165 170 175  
 Glu Asp Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp  
 180 185 190  
 Pro Gly Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met  
 195 200 205  
 Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
 225 230 235 240  
 Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
 245 250 255  
 Ile Ser Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
 260 265 270  
 Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val  
 275 280 285

<210> 241  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 241  
 Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15  
 Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys  
 20 25 30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45





1	5	10	15
Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys	20	25	30
Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu	35	40	45
Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile	50	55	60
His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp	65	70	75
Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr	85	90	95
Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly	100	105	110
Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg	115	120	125
Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr	130	135	140
Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile	145	150	155
Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu	165	170	175
Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp	180	185	190
Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met	195	200	205
Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg	210	215	220
Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro	225	230	235
Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly	245	250	255
Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg	260	265	270
Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val	275	280	285

<210> 243

<211> 287

<212> PRT

<220>

<400> 243

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Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Ile His Pro Val  
 275 280 285

<210> 244  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 244  
 Met Gly Tyr Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15  
 Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Leu Cys  
 20 25 30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45  
 Pro Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60  
 His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
 65 70 75 80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
 85 90 95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
 100 105 110  
 Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125  
 Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140  
 Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
 145 150 155 160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu  
 165 170 175  
 Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp  
 180 185 190  
 Pro Gly Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met  
 195 200 205  
 Thr Thr Asn His Asn Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
225 230 235 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
245 250 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
260 265 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
275 280 285

<210> 245

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 245

Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr  
1 5 10 15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Leu Cys  
20 25 30

Ser Gly Val Ile His Met Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
50 55 60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
100 105 110

Thr Tyr Glu Cys Val Ala Leu Lys Tyr Glu Lys Asp Ala Phe Lys Gln  
115 120 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr  
130 135 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met  
165 170 175

Glu Asp Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp

180	185	190
Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met		
195	200	205
Thr Ala Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg		
210	215	220
Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro		
225	230	235
Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly		
245	250	255
Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg		
260	265	270
Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val		
275	280	285

<210> 246

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 246

Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr		
1	5	10
Leu Lys Phe Phe Gln Leu Leu Gly Leu Ala Cys Leu Ser His Phe Cys		
20	25	30
Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu		
35	40	45
Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile		
50	55	60
His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp		
65	70	75
Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr		
85	90	95
Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Leu Ser Asp Glu Gly		
100	105	110
Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg		
115	120	125
Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr		
130	135	140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile  
145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu  
165 170 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp  
180 185 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met  
195 200 205

Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg  
210 215 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
225 230 235 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
245 250 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
260 265 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
275 280 285

<210> 247

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 247

Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr  
1 5 10 15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys  
20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
50 55 60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
 100 105 110  
 Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125  
 Lys His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140  
 Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile  
 145 150 155 160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu  
 165 170 175  
 Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp  
 180 185 190  
 Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met  
 195 200 205  
 Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
 225 230 235 240  
 Asn Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
 245 250 255  
 Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg  
 260 265 270  
 Glu Arg Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val His Pro Val  
 275 280 285

<210> 248  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 248  
 Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15  
 Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys  
 20 25 30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45  
 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile



50					55					60					
Tyr	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp
65					70					75					80
Met	Asn	Ile	Trp	Pro	Glu	His	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr
				85					90					95	
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly
		100						105					110		
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg
	115						120					125			
Glu	His	Leu	Ala	Glu	Val	Thr	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr
	130					135					140				
Pro	Ser	Ile	Thr	Asp	Phe	Glu	Ile	Pro	Thr	Ser	Asn	Ile	Arg	Arg	Ile
145				150					155					160	
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu
			165						170					175	
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp
		180						185					190		
Pro	Gly	Thr	Glu	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met
	195						200					205			
Thr	Thr	Asn	Arg	Ser	Phe	Val	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg
	210					215					220				
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro
225				230						235					240
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly
			245						250					255	
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg
		260						265					270		
Glu	Arg	Arg	Arg	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	Arg	Pro	Val
	275					280						285			

<210> 249

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 249

Met	Ser	His	Thr	Arg	Arg	Gln	Gly	Ile	Ser	Pro	Ser	Lys	Cys	Pro	Tyr
1					5				10					15	

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys  
                   20                                  25                                  30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
                   35                                  40                                  45  
 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
                   50                                  55                                  60  
 Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Pro Gly Asp  
                   65                                  70                                  75                                  80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
                                   85                                  90                                  95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
                   100                                  105                                  110  
 Thr Tyr Glu Cys Val Val Leu Arg Tyr Glu Lys Asp Ala Phe Lys Arg  
                   115                                  120                                  125  
 Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr  
                   130                                  135                                  140  
 Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile  
                   145                                  150                                  155                                  160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu  
                                   165                                  170                                  175  
 Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp  
                   180                                  185                                  190  
 Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met  
                   195                                  200                                  205  
 Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg  
                   210                                  215                                  220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
                   225                                  230                                  235                                  240  
 Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly  
                                   245                                  250                                  255  
 Ile Phe Val Ile Cys Cys Leu Thr His Cys Phe Ala Pro Arg Cys Arg  
                   260                                  265                                  270  
 Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
                   275                                  280                                  285

<210> 250

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 250

Met	Ser	His	Thr	Arg	Arg	Gln	Gly	Ile	Ser	Pro	Ser	Lys	Cys	Pro	Tyr	
1				5					10					15		
Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Gly	Leu	Ser	His	Phe	Cys	
			20					25					30			
Ser	Gly	Val	Ile	His	Val	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu	
		35					40				45					
Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile	
	50					55					60					
His	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Gly	
65					70					75					80	
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	
				85					90					95		
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	
			100					105						110		
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg	
		115					120					125				
Glu	His	Leu	Ala	Glu	Val	Thr	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	
	130					135					140					
Pro	Ser	Ile	Ser	Asp	Phe	Glu	Ile	Pro	Thr	Ser	Asn	Ile	Arg	Arg	Ile	
145					150					155					160	
Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Ser	Trp	Leu	
				165					170					175		
Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Ser	Thr	Thr	Val	Ser	Gln	Asp	
		180						185						190		
Pro	Gly	Thr	Glu	Leu	Tyr	Ala	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	
		195					200					205				
Thr	Thr	Asn	Arg	Ser	Phe	Val	Cys	Leu	Ile	Lys	Tyr	Gly	His	Leu	Arg	
		210				215					220					
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Thr	Lys	Gln	Glu	His	Phe	Pro	
225					230					235					240	
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly	
				245					250					255		
Ile	Phe	Val	Ile	Cys	Cys	Leu	Thr	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg	
			260					265					270			

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
 275 280 285

<210> 251

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 251

Met Gly Tyr Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys  
 20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
 65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
 85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
 100 105 110

Thr Tyr Glu Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
 145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu  
 165 170 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp  
 180 185 190

Pro Gly Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met  
 195 200 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro

225		230		235		240									
Asp	Asn	Leu	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Val	Asn	Gly
				245					250					255	
Ile	Phe	Val	Ile	Cys	Cys	Leu	Ala	Tyr	Cys	Phe	Ala	Pro	Arg	Cys	Arg
			260					265					270		
Gly	Arg	Arg	Arg	Asn	Glu	Arg	Leu	Arg	Arg	Glu	Ser	Val	Arg	Pro	Val
			275				280					285			

<210> 252  
 <211> 288  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 252

Met	Gly	His	Thr	Arg	Arg	Gln	Gly	Thr	Ser	Pro	Ser	Lys	Cys	Pro	Tyr
1				5				10						15	
Leu	Asn	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Cys	Leu	Ser	His	Phe	Cys
			20					25					30		
Ser	Gly	Val	Ile	His	Val	Thr	Lys	Glu	Val	Lys	Glu	Val	Ala	Thr	Leu
		35					40					45			
Ser	Cys	Gly	His	Asn	Val	Ser	Val	Glu	Glu	Leu	Ala	Gln	Thr	Arg	Ile
	50					55					60				
Tyr	Trp	Gln	Lys	Glu	Lys	Lys	Met	Val	Leu	Thr	Met	Met	Ser	Gly	Asp
65					70					75					80
Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr
				85					90					95	
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly
			100					105					110		
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Glu	Lys	Asp	Ala	Phe	Lys	Arg
		115					120					125			
Glu	His	Leu	Ala	Glu	Val	Met	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr
		130				135					140				
Pro	Ser	Ile	Ser	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Arg	Arg	Ile
145					150					155					160
Ile	Cys	Ser	Thr	Pro	Gly	Gly	Phe	Pro	Glu	Pro	Arg	Leu	Ala	Trp	Met
				165					170					175	
Glu	Asp	Gly	Glu	Glu	Leu	Asn	Ala	Ile	Ser	Thr	Thr	Val	Ser	Gln	Asp
			180					185					190		

Pro Gly Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met  
 195 200 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro  
 225 230 235 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Lys Gly  
 245 250 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Trp Arg  
 260 265 270

Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val  
 275 280 285

<210> 253  
 <211> 880  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

<400> 253  
 atgggcccaca cgctgaggcc gggaaactcca ctgcccaggt gtctacacct caagctctgc 60  
 ctgctcttggt cgctggcggg tctccacttc tcttcaggta tcagccaggt caccaagtcg 120  
 gtgaaagaaa tggcagcact gtctgtgat tacaacattt ctatcgatga actggcgaga 180  
 atgcgcataat actggcagaa ggaccaacag atggtgctga gcatcatctc tgggcaagtg 240  
 gaagtgtggc ctgagtacaa aaaccgcacc ttccccgaca tcattaacaa cctctccctt 300  
 atgatcctgg cactgcgcct gtcggacaag ggcacctaca cctgcgtggt tcagaagaat 360  
 gagaacgggt ctttcagacg ggagcacctg acctccgtga cactgtccat cagagctgac 420  
 ttccctgtcc ctagcataaa tgatcttgga aatccatctc ctaatatcag aaggctaatt 480  
 tgctcaacct ctggagggtt tccaaggccc cacctctact ggttggaaaa tggagaagaa 540  
 ttaaagtcta ccaacacaac actgtcccaa gatcctgaaa ccaagctcta catgattagc 600  
 agtgaactgg atttcaacat gacaagcaat cacagcttct tgtgtcttgt caagtatgga 660  
 gacttaacag tgtcacagac cttctactgg caagaatcca aaccaacccc ttctgctaatt 720  
 cagcacctga cctggaccat tattatccca gtctcagcat ttgggatttc tgtgatcatt 780  
 gcagttatac taacatgcct gacctgcaga aatgctgcaa tacgcagaca gagaagggag 840  
 aatgaagtgg aaatgcaaag ttgctctcag tctccatgag 880

<210> 254  
 <211> 891  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

<400> 254

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atggggtcaca caatggagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgcg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggtacta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tctactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tgggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggaggt ttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgtcttc agtctccata g 891

```

<210> 255

<211> 889

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 255

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atggggccaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggtacta ttggcaaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tctactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tgggacagtg gcacctacac ctgcgtgggt 360
cagaagaatg agaacgggtc ttccagacgg gagcacctga cctccgtgag gttaatgatc 420
agagctgact tccctgtccc taccataaat gatcttggaa atccatctcc taatatcaga 480
aggctaattt gctcaacctc tggaggtttt ccaaggcccc acctctactg gttggaaaat 540
ggagaagaat taaatgctac caacacaaca ctgccccaaag atcctgaaac caagctctac 600
atgattagca gtgaactgga tttcaacatg acaagcaatc acagcttctt gtgtcttgtc 660
aagtatggag acttaacagt gtcacagacc ttctactggc aagaatccaa accaaccctt 720
tctgctaata agcacctgac ctggaccatt attatcccag tctcagcatt tgggatttct 780
gtgatcattg cagttatact aacatgcctg acctgcagaa atgctgcaat acgcagacag 840
agaagggaga atgaagtgga aatgcaaagt tgctctcagt ctccatgag 889

```

<210> 256

<211> 888

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 256

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atggggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180

```

```

ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgcgtgggtt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cttccgtgag gttaatgata 420
agagctgact tccctgtccc taccataaat gatcttggaa atccatctcc taatatcaga 480
aggctaattt gctcaacctc tggaggtttt ccaaggcccc acctctactg gttggaaaat 540
ggagaagaat taaatgctac caacacaaca ctgtcccaag atcctgaaac caagctctac 600
atgattagca gtgaactgga tttcaacatg acaagcaatc acagcttctt gtgtcttgtc 660
aagtatggag acttaacagt gtgcgagacc ttctactggc aagaatccaa accaaccctt 720
tctgctaata agcacctgac ctggaccatt attatcccag tctcagcatt tgggatttct 780
gtgatcattg cagttatact aacatgcctg acctgcagaa atgctgcaat acgcagacag 840
agaagggaga atgaagtgga gatgcaaagt tgctctcagt ctccatag 888

```

<210> 257

<211> 891

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 257

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atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgtcaaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcage atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgtcttc agtctccatg a 891

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<210> 258

<211> 910

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 258

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atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcaactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgcgtgggtt 360

```



```

cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc tagcataact gacattggac atcccgcgcc taatgtgaaa 480
aggataagat gctccgcctc tggaggtttt ccagagcctc gcctctactg gttggaaaat 540
ggagaagaat taaatgctac caacacaaca gtttcccaag atcctggaac tgagctctac 600
atgattagca gtgaactgga tttcaatgtg acaaataacc acagcatcgt gtgtctcatc 660
aaatacgggg agctgtcggt gtcacagatc ttcccttgga gcaaacccaa gcaggagcct 720
cccattgata agcttccatt ctgggtcatt atcccagtaa gtggtgcttt ggtgctcact 780
gcggtagttc tctactgcct ggctgcaga catgttgca ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctgag
910

```

<210> 259

<211> 888

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 259

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atggatcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tctgttgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcatgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgctgtggt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact ttcctgtccc taccataaat gatcttggaa atccatctcc taatatcaga 480
aggctaattt gctcaacctc tggaggtttt ccaaggcccc acctctactg gttggaaaat 540
ggagaagaat taaatgctac caacacaaca ctgtcccaag atcctgaaac caagctctac 600
atgattagca gtgaactgga tttcaacatg acaagcaatc acagcttctt gtgtcttgct 660
aagtatggag acttaacagt gtcacagacc ttctactggc aagaatccaa accaaccctt 720
tctgctaate agcacctgac ctggaccatt attatccgg tctcagcatt tgggatttct 780
gtgatcattg cagttatact aacatgcctg acctgcagaa atgctgcaat acgcagacag 840
agaagggaga atgaagtgga aatgcaaagt tgctctcagt ctccatag 888

```

<210> 260

<211> 888

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<400> 260

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atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgcccactgg tcttttttac ttctgttcag gtatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tctgttgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tgggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcatgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgctgtggt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc taccataaat gatcttggaa atccatctcc taatatcaga 480

```

```

aggctaattt gctcaacctc tggaggtttt ccaaggcccc acctctactg gttggaaaat 540
ggagaagaat taaatgctac caacacaaca ctgtcccaag atcctgaaac caagctctac 600
atgattagca gtgaactgga tttcaacatg acaagcaatc acagcttctt gtgtcttgtc 660
aagtatggag acttaacagt gtcacagacc ctctactggc aagaatccaa accaaccctt 720
tctgctaate agcacctgac ctggaccatt attatcccag tctcagcatt tgggatttct 780
gtgatcattg cagttatact aacatgcctg acctgcagaa atgctgcaat acgcagacag 840
agaagggaga atgaagtgga aatgcaaagt tgctctcagt ctccatga 888

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<210> 261  
 <211> 891  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

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<400> 261
atgggtcaca cagtgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcgatcta ttggcaaaag gatagtaaaa tgggtgtggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcatgacat gaacgataac 300
ccccgtattg tgatcctggc tctgccccctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttcctg gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaataatc 480
agaaggctaa tttgctcaac ctctggagggt ttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgtcttc agtctccatg a 891

```

<210> 262  
 <211> 910  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 nucleotide sequence

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<400> 262
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
acaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcgatcta ttggcaaaag gatagtaaaa tgggtgtggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaaa aaccgcacct tccccgacat cattaacaac 300
ctctccctta tgatcctggc actgcgcctg tcggacaggg gcacctacac ctgcgtggtt 360
cagaagaatg agaacgggtc ttccagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc tagcataact gacattggac atcccccccc taatgtgaaa 480
aggataagat gctccgcctc tggaggtttt ccagagcctc gcctcgctg gatggaagat 540
ggagaagaac taaacgccgt caacacgacg gttgaccagg atttgacac ggagctctac 600
agcgtcggca gtgaactgga tttcaatgtg acaaataacc acagcatcgt gtgtctcatc 660

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aaatacgggg agctgtcggt gtcacagatc ttcccttgga gcaaacccaa gcaggagcct 720  
 cccattgatc agcttccatt ctgggtcatt atcccagtaa gtggtgcttt ggtgctcact 780  
 gcggtagttc tctactgcct ggcccgcaga catgttgca ggtggaaaag aacaagaagg 840  
 aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900  
 tcgggctgag 910

<210> 263  
 <211> 292  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 263  
 Met Gly His Thr Leu Arg Pro Gly Thr Pro Leu Pro Arg Cys Leu His  
 1 5 10 15  
 Leu Lys Leu Cys Leu Leu Leu Ala Leu Ala Gly Leu His Phe Ser Ser  
 20 25 30  
 Gly Ile Ser Gln Val Thr Lys Ser Val Lys Glu Met Ala Ala Leu Ser  
 35 40 45  
 Cys Asp Tyr Asn Ile Ser Ile Asp Glu Leu Ala Arg Met Arg Ile Tyr  
 50 55 60  
 Trp Gln Lys Asp Gln Gln Met Val Leu Ser Ile Ile Ser Gly Gln Val  
 65 70 75 80  
 Glu Val Trp Pro Glu Tyr Lys Asn Arg Thr Phe Pro Asp Ile Ile Asn  
 85 90 95  
 Asn Leu Ser Leu Met Ile Leu Ala Leu Arg Leu Ser Asp Lys Gly Thr  
 100 105 110  
 Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe Arg Arg Glu  
 115 120 125  
 His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe Pro Val Pro  
 130 135 140  
 Ser Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile Arg Arg Leu Ile  
 145 150 155 160  
 Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu Tyr Trp Leu Glu  
 165 170 175  
 Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu Ser Gln Asp Pro  
 180 185 190  
 Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe Asn Met Thr  
 195 200 205  
 Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asp Leu Thr Val

210	215	220
Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr Pro Ser Ala Asn		
225	230	235 240
Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser Ala Phe Gly Ile		
	245	250 255
Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr Cys Arg Asn Ala		
	260	265 270
Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu Met Gln Ser Cys		
	275	280 285
Ser Gln Ser Pro		
290		

<210> 264  
 <211> 296  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 264

Met Gly His Thr Met Glu Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys		
1	5	10 15
Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys		
	20	25 30
Ser Gly Ile Thr Pro Lys Ser Ala Thr Lys Arg Val Lys Glu Thr Val		
	35	40 45
Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu		
	50	55 60
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro		
	65	70 75 80
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp		
	85	90 95
Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp		
	100	105 110
Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala		
	115	120 125
Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp		
	130	135 140
Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile		
	145	150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
 165 170 175  
 Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu  
 180 185 190  
 Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp  
 195 200 205  
 Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly  
 210 215 220  
 Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr  
 225 230 235 240  
 Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser  
 245 250 255  
 Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr  
 260 265 270  
 Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu  
 275 280 285  
 Met Gln Ser Cys Ser Gln Ser Pro  
 290 295

<210> 265

<211> 295

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 265

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Ser Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe  
 115 120 125  
 Arg Arg Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp Phe  
 130 135 140  
 Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile Arg  
 145 150 155 160  
 Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu Tyr  
 165 170 175  
 Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu Pro  
 180 185 190  
 Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe  
 195 200 205  
 Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asp  
 210 215 220  
 Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr Pro  
 225 230 235 240  
 Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser Ala  
 245 250 255  
 Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr Cys  
 260 265 270  
 Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu Met  
 275 280 285  
 Gln Ser Cys Ser Gln Ser Pro  
 290 295

<210> 266  
 <211> 295  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 266  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val

35					40					45						
Met	Leu	Ser	Cys	Asp	Tyr	Ser	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	
50					55					60						
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	
65					70					75					80	
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	
85					90					95						
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	
100					105					110						
Lys	Gly	Thr	Tyr	Thr	Cys	Val	Val	Gln	Lys	Asn	Glu	Asn	Gly	Ser	Phe	
115					120					125						
Arg	Arg	Glu	His	Leu	Thr	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	Phe	
130					135					140						
Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile	Arg	
145					150					155					160	
Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu	Tyr	
165					170					175						
Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Leu	Ser	
180					185					190						
Gln	Asp	Pro	Glu	Thr	Lys	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp	Phe	
195					200					205						
Asn	Met	Thr	Ser	Asn	His	Ser	Phe	Leu	Cys	Leu	Val	Lys	Tyr	Gly	Asp	
210					215					220						
Leu	Thr	Val	Ser	Gln	Thr	Phe	Tyr	Trp	Gln	Glu	Ser	Lys	Pro	Thr	Pro	
225					230					235					240	
Ser	Ala	Asn	Gln	His	Leu	Thr	Trp	Thr	Ile	Ile	Ile	Pro	Val	Ser	Ala	
245					250					255						
Phe	Gly	Ile	Ser	Val	Ile	Ile	Ala	Val	Ile	Leu	Thr	Cys	Leu	Thr	Cys	
260					265					270						
Arg	Asn	Ala	Ala	Ile	Arg	Arg	Gln	Arg	Arg	Glu	Asn	Glu	Val	Glu	Met	
275					280					285						
Gln	Ser	Cys	Ser	Gln	Ser	Pro										
290					295											

<210> 267  
 <211> 296  
 <212> PRT  
 <213> Artificial Sequence  
 <220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 267

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys	1	5	10	15
Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys	20	25	30	
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val	35	40	45	
Met	Leu	Ser	Cys	Asp	Tyr	Ser	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	50	55	60	
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	65	70	75	80
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	85	90	95	
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	100	105	110	
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Asp	Leu	Lys	Gly	Ala	115	120	125	
Tyr	Lys	Leu	Glu	His	Leu	Thr	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	130	135	140	
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile	145	150	155	160
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu	165	170	175	
Tyr	Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Leu	180	185	190	
Ser	Gln	Asp	Pro	Glu	Thr	Lys	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp	195	200	205	
Phe	Asn	Met	Thr	Ser	Asn	His	Ser	Phe	Leu	Cys	Leu	Val	Lys	Tyr	Gly	210	215	220	
Asp	Leu	Thr	Val	Ser	Gln	Thr	Phe	Tyr	Trp	Gln	Glu	Ser	Lys	Pro	Thr	225	230	235	240
Pro	Ser	Ala	Asn	Gln	His	Leu	Thr	Trp	Thr	Ile	Ile	Ile	Pro	Val	Ser	245	250	255	
Ala	Phe	Gly	Ile	Ser	Val	Ile	Ile	Ala	Val	Ile	Leu	Thr	Cys	Leu	Thr	260	265	270	
Cys	Arg	Asn	Ala	Ala	Ile	Arg	Arg	Gln	Arg	Arg	Glu	Asn	Glu	Val	Glu	275	280	285	



Met Gln Ser Cys Ser Gln Ser Pro  
 290 295

<210> 268  
 <211> 302  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 268  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe  
 115 120 125  
 Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe  
 130 135 140  
 Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys  
 145 150 155 160  
 Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Tyr  
 165 170 175  
 Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val Ser  
 180 185 190  
 Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe  
 195 200 205  
 Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu  
 210 215 220

Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro  
 225 230 235 240  
 Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala  
 245 250 255  
 Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val  
 260 265 270  
 Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu  
 275 280 285  
 Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
 290 295 300

<210> 269  
 <211> 295  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 269  
 Met Asp His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80  
 Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95  
 Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110  
 Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe  
 115 120 125  
 Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe  
 130 135 140  
 Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile Arg  
 145 150 155 160  
 Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu Tyr

165	170	175
Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu Ser		
180	185	190
Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe		
195	200	205
Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asp		
210	215	220
Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr Pro		
225	230	235
Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser Ala		
245	250	255
Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr Cys		
260	265	270
Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu Met		
275	280	285
Gln Ser Cys Ser Gln Ser Pro		
290	295	

<210> 270

<211> 295

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 270

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys		
1	5	10
Leu Trp Leu Ser Gln Leu Leu Val Pro Thr Gly Leu Phe Tyr Phe Cys		
20	25	30
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val		
35	40	45
Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu		
50	55	60
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro		
65	70	75
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp		
85	90	95
Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp		
100	105	110

Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe  
115 120 125

Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe  
130 135 140

Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile Arg  
145 150 155 160

Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu Tyr  
165 170 175

Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu Ser  
180 185 190

Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe  
195 200 205

Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asp  
210 215 220

Leu Thr Val Ser Gln Thr Leu Tyr Trp Gln Glu Ser Lys Pro Thr Pro  
225 230 235 240

Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser Ala  
245 250 255

Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr Cys  
260 265 270

Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu Met  
275 280 285

Gln Ser Cys Ser Gln Ser Pro  
290 295

<210> 271

<211> 296

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 271

Met Gly His Thr Val Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
35 40 45



<400> 272

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys	1	5	10	15
Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys	20	25	30	
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val	35	40	45	
Met	Leu	Ser	Cys	Asp	Tyr	Ser	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	50	55	60	
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	65	70	75	80
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Phe	Pro	Asp	85	90	95	
Ile	Ile	Asn	Asn	Leu	Ser	Leu	Met	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	100	105	110	
Arg	Gly	Thr	Tyr	Thr	Cys	Val	Val	Gln	Lys	Asn	Glu	Asn	Gly	Ser	Phe	115	120	125	
Arg	Arg	Glu	His	Leu	Thr	Ser	Val	Thr	Leu	Ser	Ile	Arg	Ala	Asp	Phe	130	135	140	
Pro	Val	Pro	Ser	Ile	Thr	Asp	Ile	Gly	His	Pro	Ala	Pro	Asn	Val	Lys	145	150	155	160
Arg	Ile	Arg	Cys	Ser	Ala	Ser	Gly	Gly	Phe	Pro	Glu	Pro	Arg	Leu	Ala	165	170	175	
Trp	Met	Glu	Asp	Gly	Glu	Glu	Leu	Asn	Ala	Val	Asn	Thr	Thr	Val	Asp	180	185	190	
Gln	Asp	Leu	Asp	Thr	Glu	Leu	Tyr	Ser	Val	Gly	Ser	Glu	Leu	Asp	Phe	195	200	205	
Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly	Glu	210	215	220	
Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu	Pro	225	230	235	240
Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly	Ala	245	250	255	
Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Arg	Arg	His	Val	260	265	270	
Ala	Arg	Trp	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr	Glu	275	280	285	
Arg	Leu	Ser	Pro	Ile	Tyr	Leu	Gly	Ser	Ala	Gln	Ser	Ser	Gly						

290

295

300

<210> 273  
 <211> 867  
 <212> DNA  
 <213> Homo sapiens

<400> 273  
 atggggccaca cacggaggca gggaacatca ccatccaagt gtccatacct caattttcttt 60  
 cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120  
 gaagtgaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180  
 caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240  
 atgaatatat ggcccagta caagaaccgg accatctttg atatcactaa taacctctcc 300  
 attgtgatcc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360  
 tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420  
 gacttcctta cacctagtat atctgacttt gaaattccaa cttctaata tagaaggata 480  
 atttgctcaa cctctggagg ttttctgag cctcacctct cctggctgga aaatggagaa 540  
 gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatgctgtt 600  
 agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660  
 ggacatttaa gagtgaatca gaccttcaac tgggaatacaa ccaagcaaga gcattttcct 720  
 gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780  
 tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840  
 agaagggaaa gtgtacgccc tgtatga 867

<210> 274  
 <211> 867  
 <212> DNA  
 <213> Macaca sp.

<400> 274  
 atggggccaca cacggaggca ggaaatatca ccatccaagt gtccatacct caagttcttt 60  
 cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120  
 gaagtgaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180  
 caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240  
 atgaatatat ggcccagta caagaaccgg accatctttg atatcacaaa taacctctcc 300  
 attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360  
 tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420  
 gacttcctta cacctagtat aactgactct gaaattccac cttctaacat tagaaggata 480  
 atttgctcaa actctggagg ttttccagag cctcacctct cctgggttga aaatggagaa 540  
 gaattaaatg ccatcagcac aacagtttcc caagatcctg aaactgagct ctatactgtt 600  
 agcagcaaac tggatttcaa tatgacaacc aatcacagtt tcatgtgtct catcaagtat 660  
 ggacatttaa gagtgaatca gaccttcaac tgggaacacac ccaagcaaga gcattttcct 720  
 gataacctgc tcccatcctg ggccattatc ctaatctcag taaatggaat ttttgtgata 780  
 tgctgcctga cctactgttt tgccccaagg tgcagagaga gaagaaggaa tgagacattg 840  
 agaagggaaa gtgtacgccc tgtatga 867

<210> 275  
 <211> 888  
 <212> DNA  
 <213> Bovine sp.

<400> 275  
 atgggtcaca caatgaagtg gggaacacta ccacccaagc gcccatgcct ctggctctct 60  
 cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcaccac aaagagtgtg 120

acaaaaagag	tgaaagaaac	agtaatgcta	tctgtgatt	acaacacatc	caactgaagaa	180
ctgacaagcc	ttcggatcta	ttggcaaaag	gatagtaaaa	tgggtgctggc	catcctgcct	240
ggaaaagtgc	aggtgtggcc	tgaatacaag	aaccgcacca	tactgacat	gaacgataac	300
ccccgcattg	tgatcctggc	tctgcgcctg	tgggacagtg	gcacctacac	ctgtgttatt	360
cagaagcctg	atttgaaagg	ggcttataaa	ctggagcacc	tgacttccgt	gagggttaatg	420
atcagagctg	acttccctgt	ccctaccata	aatgatcttg	gaaatccatc	tcctaatatc	480
agaaggctaa	tttgctcaac	ctctggagggt	tttccaaggc	cccacctcta	ctgggttgga	540
aatggagaag	aattaaatgc	taccaacaca	acactgtccc	aagatcctga	aaccaagctc	600
tacatgatta	gcagtgaact	ggattttcaac	atgacaagca	atcacagctt	cttgtgtctt	660
gtcaagtatg	gagacttaac	agtgtcacag	accttctact	ggcaagaatc	caaaccaacc	720
ccttctgcta	atcagcacct	gacctggacc	attattatcc	cagtctcagc	atttgggatt	780
tctgtgatca	ttgcagttat	actaacatgc	ctgacctgca	gaaatgctgc	aatacgcaga	840
cagagaaggg	agaatgaagt	ggaaatggaa	agttgtcttc	agtctcca		888

<210> 276

<211> 900

<212> DNA

<213> *Oryctolagus cuniculus*

<400> 276

atggggccaca	cgctgaggcc	gggaactcca	ctgcccaggt	gtctacacct	caagctctgc	60
ctgctcttgg	cgctggcggg	tctccacttc	tcttcaggta	tcagccaggt	caccaagtcg	120
gtgaaagaaa	tggcagcact	gtcctgtgat	tacaacattt	ctatcgatga	actggcgaga	180
atgcgcataat	actggcagaa	ggaccaacag	atggtgctga	gcatcatctc	tgggcaagtg	240
gaagtgtggc	ctgagtacaa	gaaccgcacc	ttccccgaca	tcattaacaa	cctctccctt	300
atgatcctgg	cactgcgcct	gtcggacaag	ggcacctaca	cctgcgtggg	tcagaagaat	360
gagaacgggt	ctttcagacg	ggagcacctg	acctccgtga	cactgtccat	cagagctgac	420
ttccctgtcc	ctagcataac	tgacattgga	catcccgacc	ctaattgtgaa	aaggataaga	480
tgtccgcct	ctggagggtt	tccagagcct	cgctcgcct	ggatggaaga	tggagaagaa	540
ctaaacgccg	tcaacacgac	ggttgaccag	gatttgga	cggagctcta	cagcgtcagc	600
agtgaactgg	atttcaatgt	gacaaataac	cacagcatcg	tgtgtctcat	caaatacggg	660
gagctgtcgg	tgtcacagat	cttcccttgg	agcaaaccga	agcaggagcc	tcccattgat	720
cagcttccat	tctgggtcat	tatcccagta	agtgggtgctt	tgggtgctcac	tgcggtagtt	780
ctctactgcc	tggcctgcag	acatgttgcg	aggtggaaaa	gaacaagaag	gaatgaagag	840
acagtgggaa	ctgaaaggct	gtccccctatc	tacttaggct	ctgcgcaatc	ctcgggctga	900

<210> 277

<211> 941

<212> DNA

<213> *Felis domesticus*

<400> 277

atgggtcacg	cagcaaagtg	gaaaacacca	ctactgaagc	acccatatcc	caagctcttt	60
ccgctcttga	tgctagctag	tcttttttac	ttctgttcag	gtatcatcca	ggtgaacaag	120
acagtggaa	aagtagcagt	actatcctgt	gattacaaca	tttccacca	agaactgacg	180
gaaattcgaa	tctattggca	aaaggatgat	gaaatgggtg	tggctgtcat	gtctggcaaa	240
gtacaagtgt	ggcccaagta	caagaaccgc	acattcactg	acgtcaccga	taaccactcc	300
attgtgatca	tggctctgcg	cctgtcagac	aatggcaaat	acatttgtat	tattcaaaa	360
attgaaaaag	ggtcttaca	agtgaacac	ctgacttcgg	tgatgttatt	ggtcagagct	420
gacttccctg	tccctagtat	aactgatctt	ggaaatccat	ctcataacat	caaaaggata	480
atgtgcttaa	cttctggagg	ttttccaaag	cctcacctct	cctggctgga	aaatgaagaa	540
gaattaaatg	ccatcaacac	aacagtttcc	caagatcctg	aaactgagct	ctacactatt	600
agcagtgaac	tggatttcaa	tatgacaaac	aaccatagct	tctgtgtct	tgtcaagtat	660
ggaaacttac	tagtatcaca	gatcttcaac	tggcaaaaat	cagagccaca	gccttcta	720
aatcagctct	ggatcattat	cctgagctca	gtagtaagtg	ggattgttgt	gatcactgca	780



cttaccttaa gatgcctagt ccacagacct gctgcaaggt ggagacaaaag agaaatgggg 840  
 agagcgcgga aatggaaaag atctcacctg tctacataga ttctgcagaa ccactgtatg 900  
 cagagcatct ggaggtagcc tctttagctc ttctctacta g 941

<210> 278  
 <211> 288  
 <212> PRT  
 <213> Homo sapiens

<400> 278  
 Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr  
 1 5 10 15  
 Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys  
 20 25 30  
 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
 35 40 45  
 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
 50 55 60  
 Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
 65 70 75 80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
 85 90 95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
 100 105 110  
 Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
 115 120 125  
 Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr  
 130 135 140  
 Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile  
 145 150 155 160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu  
 165 170 175  
 Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp  
 180 185 190  
 Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met  
 195 200 205  
 Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg  
 210 215 220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro  
 225 230 235 240  
 Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly

	245		250		255
Ile Phe Val	Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg				
260		265		270	
Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val					
275		280		285	
<210> 279					
<211> 288					
<212> PRT					
<213> Macaca sp.					
<400> 279					
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr					
1	5	10		15	
Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Leu Cys					
20		25		30	
Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu					
35		40		45	
Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile					
50		55		60	
Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp					
65		70		75	80
Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr					
	85		90		95
Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly					
100		105		110	
Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg					
115		120		125	
Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr					
130		135		140	
Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile					
145		150		155	160
Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu Ser Trp Leu					
	165		170		175
Glu Asn Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Val Ser Gln Asp					
180		185		190	
Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met					
195		200		205	
Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg					
210		215		220	

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
 225 230 235 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly  
 245 250 255

Ile Phe Val Ile Cys Cys Leu Thr His Cys Phe Ala Pro Arg Cys Arg  
 260 265 270

Glu Arg Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val  
 275 280 285

<210> 280

<211> 296

<212> PRT

<213> Bovine sp.

<400> 280

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
 65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
 85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
 100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala  
 115 120 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
 130 135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
 145 150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
 165 170 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu  
 180 185 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp  
 195 200 205

Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly  
 210 215 220  
 Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr  
 225 230 235 240  
 Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser  
 245 250 255  
 Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr  
 260 265 270  
 Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu  
 275 280 285  
 Met Gln Ser Cys Ser Gln Ser Pro  
 290 295

<210> 281  
 <211> 299  
 <212> PRT  
 <213> Oryctolagus cuniculus

<400> 281  
 Met Gly His Thr Leu Arg Pro Gly Thr Pro Leu Pro Arg Cys Leu His  
 1 5 10 15  
 Leu Lys Leu Cys Leu Leu Leu Ala Leu Ala Gly Leu His Phe Ser Ser  
 20 25 30  
 Gly Ile Ser Gln Val Thr Lys Ser Val Lys Glu Met Ala Ala Leu Ser  
 35 40 45  
 Cys Asp Tyr Asn Ile Ser Ile Asp Glu Leu Ala Arg Met Arg Ile Tyr  
 50 55 60  
 Trp Gln Lys Asp Gln Gln Met Val Leu Ser Ile Ile Ser Gly Gln Val  
 65 70 75 80  
 Glu Val Trp Pro Glu Tyr Lys Asn Arg Thr Phe Pro Asp Ile Ile Asn  
 85 90 95  
 Asn Leu Ser Leu Met Ile Leu Ala Leu Arg Leu Ser Asp Lys Gly Thr  
 100 105 110  
 Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe Arg Arg Glu  
 115 120 125  
 His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe Pro Val Pro  
 130 135 140  
 Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys Arg Ile Arg  
 145 150 155 160  
 Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met Glu

165	170	175
Asp Gly Glu Glu Leu Asn Ala Val	Asn Thr Thr Val	Asp Gln Asp Leu
180	185	190
Asp Thr Glu Leu Tyr Ser Val	Ser Ser Glu Leu Asp	Phe Asn Val Thr
195	200	205
Asn Asn His Ser Ile Val	Cys Leu Ile Lys Tyr	Gly Glu Leu Ser Val
210	215	220
Ser Gln Ile Phe Pro Trp Ser Lys	Pro Lys Gln Glu Pro	Pro Ile Asp
225	230	240
Gln Leu Pro Phe Trp Val Ile Ile	Pro Val Ser Gly Ala Leu	Val Leu
245	250	255
Thr Ala Val Val Leu Tyr Cys Leu	Ala Cys Arg His Val	Ala Arg Trp
260	265	270
Lys Arg Thr Arg Arg Asn Glu Glu	Thr Val Gly Thr Glu	Arg Leu Ser
275	280	285
Pro Ile Tyr Leu Gly Ser Ala Gln	Ser Ser Gly	
290	295	

<210> 282  
 <211> 292  
 <212> PRT  
 <213> Felis domesticus

<400> 282  
 Met Gly His Ala Ala Lys Trp Lys Thr Pro Leu Leu Lys His Pro Tyr  
 1 5 10 15  
 Pro Lys Leu Phe Pro Leu Leu Met Leu Ala Ser Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Ile Gln Val Asn Lys Thr Val Glu Glu Val Ala Val Leu  
 35 40 45  
 Ser Cys Asp Tyr Asn Ile Ser Thr Lys Glu Leu Thr Glu Ile Arg Ile  
 50 55 60  
 Tyr Trp Gln Lys Asp Asp Glu Met Val Leu Ala Val Met Ser Gly Lys  
 65 70 75 80  
 Val Gln Val Trp Pro Lys Tyr Lys Asn Arg Thr Phe Thr Asp Val Thr  
 85 90 95  
 Asp Asn His Ser Ile Val Ile Met Ala Leu Arg Leu Ser Asp Asn Gly  
 100 105 110  
 Lys Tyr Thr Cys Ile Ile Gln Lys Ile Glu Lys Gly Ser Tyr Lys Val  
 115 120 125

Lys His Leu Thr Ser Val Met Leu Leu Val Arg Ala Asp Phe Pro Val  
 130 135 140  
 Pro Ser Ile Thr Asp Leu Gly Asn Pro Ser His Asn Ile Lys Arg Thr  
 145 150 155 160  
 Met Cys Leu Thr Ser Gly Gly Phe Pro Lys Pro His Leu Ser Trp Leu  
 165 170 175  
 Glu Asn Glu Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp  
 180 185 190  
 Pro Glu Thr Glu Leu Tyr Thr Ile Ser Ser Glu Leu Asp Phe Asn Met  
 195 200 205  
 Thr Asn Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asn Leu Leu  
 210 215 220  
 Val Ser Gln Ile Phe Asn Trp Gln Lys Ser Glu Pro Gln Pro Ser Asn  
 225 230 235 240  
 Asn Gln Leu Trp Ile Ile Ile Leu Ser Ser Val Val Ser Gly Ile Val  
 245 250 255  
 Val Ile Thr Ala Leu Thr Leu Arg Cys Leu Val His Arg Pro Ala Ala  
 260 265 270  
 Arg Trp Arg Gln Arg Glu Met Gly Arg Ala Arg Lys Trp Lys Arg Ser  
 275 280 285  
 His Leu Ser Thr  
 290

<210> 283  
 <211> 303  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Consensus  
 sequence

<400> 283  
 Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
 1 5 10 15  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
 20 25 30  
 Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
 35 40 45  
 Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
 50 55 60  
 Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro

65		70		75		80									
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp
			85						90					95	
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp
			100					105					110		
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala
		115					120					125			
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp
		130				135					140				
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile
145					150					155					160
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu
			165					170						175	
Tyr	Trp	Leu	Glu	Asn	Gly	Glu	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Val
		180						185					190		
Ser	Gln	Asp	Pro	Asp	Thr	Glu	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp
		195					200					205			
Phe	Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly
	210					215					220				
Glu	Leu	Ser	Val	Ser	Gln	Ile	Phe	Pro	Trp	Ser	Lys	Pro	Lys	Gln	Glu
225					230					235				240	
Pro	Pro	Ile	Asp	Gln	Leu	Pro	Phe	Trp	Val	Ile	Ile	Pro	Val	Ser	Gly
			245					250						255	
Ala	Leu	Val	Leu	Thr	Ala	Val	Val	Leu	Tyr	Cys	Leu	Ala	Cys	Arg	His
		260						265					270		
Val	Ala	Arg	Trp	Lys	Arg	Thr	Arg	Arg	Asn	Glu	Glu	Thr	Val	Gly	Thr
		275					280					285			
Glu	Arg	Leu	Ser	Pro	Ile	Tyr	Leu	Gly	Ser	Ala	Gln	Ser	Ser	Gly	
	290					295					300				

<210> 284

<211> 303

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<221> MOD\_RES

<222> (6)

<223> Lys or Glu

<220>

<221> MOD\_RES

<222> (8)

<223> Arg or Gly

<220>

<221> MOD\_RES

<222> (14)

<223> Arg or Cys

<220>

<221> MOD\_RES

<222> (18)

<223> Trp or Arg

<220>

<221> MOD\_RES

<222> (19)

<223> Pro or Leu

<220>

<221> MOD\_RES

<222> (20)

<223> Ser or Pro

<220>

<221> MOD\_RES

<222> (27)

<223> Asp or Gly

<220>

<221> MOD\_RES

<222> (55)

<223> Asn or Ser

<220>

<221> MOD\_RES

<222> (60)

<223> Glu or Lys

<220>

<221> MOD\_RES

<222> (69)

<223> Gln or Arg

<220>

<221> MOD\_RES

<222> (101)

<223> Pro or Leu

<220>

<221> MOD\_RES

<222> (106)

<223> Leu or Gln



<220>  
<221> MOD\_RES  
<222> (110)  
<223> Pro or Leu

<220>  
<221> MOD\_RES  
<222> (113)  
<223> Lys or Ser

<220>  
<221> MOD\_RES  
<222> (120)  
<223> Val or Ile

<220>  
<221> MOD\_RES  
<222> (124)  
<223> Val or Asp

<220>  
<221> MOD\_RES  
<222> (135)  
<223> Thr or Ala

<220>  
<221> MOD\_RES  
<222> (149)  
<223> Thr, Ser or deleted

<220>  
<221> MOD\_RES  
<222> (150)  
<223> Ile or deleted

<220>  
<221> MOD\_RES  
<222> (151)  
<223> Asn or Thr

<220>  
<221> MOD\_RES  
<222> (167)  
<223> Thr or deleted

<220>  
<221> MOD\_RES  
<222> (168)  
<223> Ser or deleted

<220>  
<221> MOD\_RES  
<222> (169)  
<223> Gly or deleted

<220>  
<221> MOD\_RES

<222> (177)  
<223> Cys or Tyr

<220>  
<221> MOD\_RES  
<222> (192)  
<223> Val or Leu

<220>  
<221> MOD\_RES  
<222> (197)  
<223> Gly or Glu

<220>  
<221> MOD\_RES  
<222> (199)  
<223> Glu or Lys

<220>  
<221> MOD\_RES  
<222> (208)  
<223> Gly or Asp

<220>  
<221> MOD\_RES  
<222> (215)  
<223> His or Arg

<220>  
<221> MOD\_RES  
<222> (218)  
<223> Ala or Val

<220>  
<221> MOD\_RES  
<222> (227)  
<223> Ser or Leu

<220>  
<221> MOD\_RES  
<222> (249)  
<223> Trp, Leu or Arg

<220>  
<221> MOD\_RES  
<222> (261)  
<223> Ala or Thr

<220>  
<221> MOD\_RES  
<222> (263)  
<223> Val, Ala or Ile

<220>  
<221> MOD\_RES  
<222> (267)  
<223> Arg or Cys

<220>

<221> MOD\_RES

<222> (268)

<223> Pro or Leu

<220>

<221> MOD\_RES

<222> (273)

<223> Gly or Val

<400> 284

Met Gly His Thr Met Xaa Trp Xaa Ser Leu Pro Pro Lys Xaa Pro Cys  
1 5 10 15

Leu Xaa Xaa Xaa Gln Leu Leu Val Leu Thr Xaa Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
35 40 45

Met Leu Ser Cys Asp Tyr Xaa Thr Ser Thr Glu Xaa Leu Thr Ser Leu  
50 55 60

Arg Ile Tyr Trp Xaa Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
85 90 95

Met Asn Asp Asn Xaa Arg Ile Val Ile Xaa Ala Leu Arg Xaa Ser Asp  
100 105 110

Xaa Gly Thr Tyr Thr Cys Val Xaa Gln Lys Pro Xaa Leu Lys Gly Ala  
115 120 125

Tyr Lys Leu Glu His Leu Xaa Ser Val Arg Leu Met Ile Arg Ala Asp  
130 135 140

Phe Pro Val Pro Xaa Xaa Xaa Asp Leu Gly Asn Pro Ser Pro Asn Ile  
145 150 155 160

Arg Arg Leu Ile Cys Ser Xaa Xaa Xaa Gly Phe Pro Arg Pro His Leu  
165 170 175

Xaa Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Xaa  
180 185 190

Ser Gln Asp Pro Xaa Thr Xaa Leu Tyr Met Ile Ser Ser Glu Leu Xaa  
195 200 205

Phe Asn Val Thr Asn Asn Xaa Ser Ile Xaa Cys Leu Ile Lys Tyr Gly  
210 215 220

Glu Leu Xaa Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
225 230 235 240

Pro Pro Ile Asp Gln Leu Pro Phe Xaa Val Ile Ile Pro Val Ser Gly  
245 250 255

Ala Leu Val Leu Xaa Ala Xaa Val Leu Tyr Xaa Xaa Ala Cys Arg His  
260 265 270

Xaa Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr  
275 280 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly  
290 295 300

<210> 285  
<211> 303  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 285  
Met Gly His Thr Met Lys Trp Arg Ser Leu Pro Pro Lys Arg Pro Cys  
1 5 10 15

Leu Trp Pro Ser Gln Leu Leu Val Leu Thr Asp Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu  
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Pro Ser Asp  
100 105 110

Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Pro Val Leu Lys Gly Ala  
115 120 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp  
130 135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile  
145 150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu  
165 170 175

Cys Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val

180	185	190
Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Gly		
195	200	205
Phe Asn Val Thr Asn Asn His Ser Ile Ala Cys Leu Ile Lys Tyr Gly		
210	215	220
Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu		
225	230	235
Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly		
245	250	255
Ala Leu Val Leu Ala Ala Val Val Leu Tyr Arg Pro Ala Cys Arg His		
260	265	270
Gly Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr		
275	280	285
Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly		
290	295	300

<210> 286

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Consensus  
sequence

<400> 286

Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr		
1	5	10
Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys		
20	25	30
Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu		
35	40	45
Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile		
50	55	60
His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp		
65	70	75
Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr		
85	90	95
Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly		
100	105	110
Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg		
115	120	125



<221> MOD\_RES  
 <222> (40)  
 <223> Lys or Arg

<220>  
 <221> MOD\_RES  
 <222> (122)  
 <223> Glu or Asp

<220>  
 <221> MOD\_RES  
 <222> (129)  
 <223> Glu or Lys

<220>  
 <221> MOD\_RES  
 <222> (164)  
 <223> Thr or Ala

<220>  
 <221> MOD\_RES  
 <222> (196)  
 <223> Glu or Gly

<220>  
 <221> MOD\_RES  
 <222> (219)  
 <223> Lys or Arg

<220>  
 <221> MOD\_RES  
 <222> (241)  
 <223> Asp or Asn

<400> 287  
 Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Xaa Lys Cys Pro Tyr  
   1                  5                  10                  15  
 Leu Lys Phe Phe Gln Leu Leu Val Xaa Ala Cys Leu Xaa His Leu Cys  
                   20                  25                  30  
 Ser Gly Val Ile His Val Thr Xaa Glu Val Lys Glu Val Ala Thr Leu  
           35                  40                  45  
 Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
       50                  55                  60  
 His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
   65                  70                  75                  80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
                   85                  90                  95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
       100                  105                  110  
 Thr Tyr Glu Cys Val Val Leu Lys Tyr Xaa Lys Asp Ala Phe Lys Arg

115	120	125
Xaa His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr 130 135 140		
Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile 145 150 155 160		
Ile Cys Ser Xaa Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu 165 170 175		
Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp 180 185 190		
Pro Glu Thr Xaa Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met 195 200 205		
Thr Ala Asn His Ser Phe Met Cys Leu Ile Xaa Tyr Gly His Leu Arg 210 215 220		
Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro 225 230 235 240		
Xaa Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly 245 250 255		
Ile Phe Val Ile Cys Cys Leu Thr Tyr Arg Phe Ala Pro Arg Cys Arg 260 265 270		
Glu Arg Lys Ser Asn Glu Thr Leu Arg Arg Glu Ser Val Cys Pro Val 275 280 285		

<210> 288

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 288

Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Pro Glu Cys Pro Tyr 1 5 10 15
Leu Lys Phe Phe Gln Leu Leu Val Met Ala Cys Leu Pro His Leu Cys 20 25 30
Ser Gly Val Ile His Val Thr Arg Glu Val Lys Glu Val Ala Thr Leu 35 40 45
Pro Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Pro Ile 50 55 60
His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp 65 70 75 80



Met	Asn	Ile	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Phe	Asp	Ile	Thr	85	90	95
Asn	Asn	Leu	Ser	Ile	Val	Ile	Leu	Ala	Leu	Arg	Pro	Ser	Asp	Glu	Gly	100	105	110
Thr	Tyr	Glu	Cys	Val	Val	Leu	Lys	Tyr	Asp	Lys	Asp	Ala	Phe	Lys	Gln	115	120	125
Lys	His	Leu	Ala	Glu	Val	Met	Leu	Ser	Val	Lys	Ala	Asp	Phe	Pro	Thr	130	135	140
Pro	Ser	Ile	Thr	Asp	Phe	Glu	Ile	Pro	Pro	Ser	Asn	Ile	Lys	Arg	Ile	145	150	155
Ile	Cys	Ser	Ala	Ser	Gly	Gly	Phe	Pro	Glu	Pro	His	Leu	Phe	Gly	Leu	165	170	175
Glu	Asn	Gly	Glu	Glu	Ile	Asn	Ala	Ile	Asn	Thr	Thr	Val	Ser	Gln	Asp	180	185	190
Pro	Glu	Thr	Gly	Leu	Tyr	Thr	Val	Ser	Ser	Lys	Leu	Asp	Phe	Asn	Met	195	200	205
Thr	Ala	Asp	His	Asn	Phe	Met	Cys	Leu	Ile	Arg	Tyr	Gly	His	Leu	Arg	210	215	220
Val	Asn	Gln	Thr	Phe	Asn	Trp	Asn	Thr	Pro	Lys	Gln	Glu	His	Phe	Pro	225	230	235
Asn	Asn	Pro	Leu	Pro	Ser	Trp	Ala	Ile	Thr	Leu	Ile	Ser	Ala	Asn	Gly	245	250	255
Ile	Phe	Val	Ile	Cys	Cys	Pro	Thr	Tyr	Arg	Phe	Ala	Pro	Gly	Cys	Arg	260	265	270
Glu	Arg	Lys	Ser	Asn	Glu	Thr	Leu	Arg	Arg	Glu	Ser	Val	Cys	Pro	Val	275	280	285

<210> 289

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 289

Met	Gly	His	Thr	Arg	Arg	Gln	Gly	Thr	Ser	Pro	Ser	Lys	Cys	Pro	Tyr	1	5	10	15
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	---	---	----	----

Leu	Lys	Phe	Phe	Gln	Leu	Leu	Val	Leu	Ala	Cys	Leu	Ser	His	Leu	Cys	20	25	30
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	----	----

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu  
           35                                  40                                  45  
 Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile  
           50                                  55                                  60  
 His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp  
           65                                  70                                  75                                  80  
 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr  
                                   85                                  90                                  95  
 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly  
                                   100                                  105                                  110  
 Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg  
           115                                  120                                  125  
 Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr  
           130                                  135                                  140  
 Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile  
           145                                  150                                  155                                  160  
 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu  
                                   165                                  170                                  175  
 Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp  
                                   180                                  185                                  190  
 Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met  
           195                                  200                                  205  
 Thr Ala Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg  
           210                                  215                                  220  
 Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro  
           225                                  230                                  235                                  240  
 Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly  
                                   245                                  250                                  255  
 Ile Phe Val Ile Cys Cys Leu Thr Tyr Arg Phe Ala Pro Arg Cys Arg  
           260                                  265                                  270  
 Glu Arg Lys Ser Asn Glu Thr Leu Arg Arg Glu Ser Val Cys Pro Val  
           275                                  280                                  285

<210> 290

<211> 275

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>  
<221> MOD\_RES  
<222> (50)  
<223> Leu or Pro

<220>  
<221> MOD\_RES  
<222> (55)  
<223> Asn or Ser

<220>  
<221> MOD\_RES  
<222> (56)  
<223> Ala or Thr

<220>  
<221> MOD\_RES  
<222> (113)  
<223> Ser or Lys

<220>  
<221> MOD\_RES  
<222> (120)  
<223> Ile or Val

<220>  
<221> MOD\_RES  
<222> (123)  
<223> Pro or deleted

<220>  
<221> MOD\_RES  
<222> (124)  
<223> Val, Asn or Asp

<220>  
<221> MOD\_RES  
<222> (125)  
<223> Leu or Glu

<220>  
<221> MOD\_RES  
<222> (126)  
<223> Lys or Asn

<220>  
<221> MOD\_RES  
<222> (128)  
<223> Ala or Ser

<220>  
<221> MOD\_RES  
<222> (129)  
<223> Tyr or Phe

<220>

<221> MOD\_RES  
<222> (130)  
<223> Lys or Arg

<220>  
<221> MOD\_RES  
<222> (131)  
<223> Leu or Arg

<220>  
<221> MOD\_RES  
<222> (135)  
<223> Ala or Thr

<220>  
<221> MOD\_RES  
<222> (138)  
<223> Arg or Thr

<220>  
<221> MOD\_RES  
<222> (140)  
<223> Met or Ser

<220>  
<221> MOD\_RES  
<222> (170)  
<223> Asp or Gly

<220>  
<221> MOD\_RES  
<222> (193)  
<223> Asp or deleted

<220>  
<221> MOD\_RES  
<222> (194)  
<223> Gln or deleted

<220>  
<221> MOD\_RES  
<222> (195)  
<223> Asp or deleted

<220>  
<221> MOD\_RES  
<222> (209)  
<223> Variable amino acid

<220>  
<221> MOD\_RES  
<222> (211)  
<223> Val or Ala

<220>  
<221> MOD\_RES  
<222> (252)

<223> Ile or Val

<220>

<221> MOD\_RES

<222> (253)

<223> Leu or Pro

<400> 290

Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys  
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
35 40 45

Met Xaa Ser Cys Asp Tyr Xaa Xaa Ser Thr Glu Glu Leu Thr Ser Leu  
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp  
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp  
100 105 110

Xaa Gly Thr Tyr Thr Cys Val Xaa Gln Lys Xaa Xaa Xaa Xaa Gly Xaa  
115 120 125

Xaa Xaa Xaa Glu His Leu Xaa Ser Val Xaa Leu Xaa Ile Arg Ala Asp  
130 135 140

Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val  
145 150 155 160

Lys Arg Ile Arg Cys Ser Ala Ser Gly Xaa Phe Pro Glu Pro Arg Leu  
165 170 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val  
180 185 190

Xaa Xaa Xaa Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp  
195 200 205

Xaa Asn Xaa Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly  
210 215 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu  
225 230 235 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Xaa Xaa Val Ser Gly  
245 250 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His

260

265

270

Val Ala Arg  
275

&lt;210&gt; 291

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Synthetic  
peptide

&lt;400&gt; 291

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Ser	Leu	Pro	Pro	Lys	Arg	Pro	Cys	1	5	10	15
Leu	Trp	Leu	Ser	Gln	Leu	Leu	Val	Leu	Thr	Gly	Leu	Phe	Tyr	Phe	Cys	20	25	30	
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val	35	40	45	
Met	Leu	Ser	Cys	Asp	Tyr	Asn	Ala	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	50	55	60	
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	65	70	75	80
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	85	90	95	
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	100	105	110	
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Val	Leu	Lys	Gly	Ala	115	120	125	
Tyr	Lys	Leu	Glu	His	Leu	Ala	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	130	135	140	
Phe	Pro	Val	Pro	Ser	Ile	Thr	Asp	Ile	Gly	His	Pro	Ala	Pro	Asn	Val	145	150	155	160
Lys	Arg	Ile	Arg	Cys	Ser	Ala	Ser	Gly	Asp	Phe	Pro	Glu	Pro	Arg	Leu	165	170	175	
Ala	Trp	Met	Glu	Asp	Gly	Glu	Glu	Leu	Asn	Ala	Val	Asn	Thr	Thr	Val	180	185	190	
Asp	Gln	Asp	Leu	Asp	Thr	Glu	Leu	Tyr	Ser	Val	Ser	Ser	Glu	Leu	Asp	195	200	205	
Ser	Asn	Val	Thr	Asn	Asn	His	Ser	Ile	Val	Cys	Leu	Ile	Lys	Tyr	Gly	210	215	220	



<220>  
 <221> MOD\_RES  
 <222> (192)  
 <223> Leu or Val

<220>  
 <221> MOD\_RES  
 <222> (211)  
 <223> Met or Thr

<220>  
 <221> MOD\_RES  
 <222> (215)  
 <223> His or deleted

<220>  
 <221> MOD\_RES  
 <222> (216)  
 <223> Ser or deleted

<220>  
 <221> MOD\_RES  
 <222> (217)  
 <223> Phe or deleted

<220>  
 <221> MOD\_RES  
 <222> (231)  
 <223> Thr or Ser

<220>  
 <221> MOD\_RES  
 <222> (288)  
 <223> Lys or Glu

<220>  
 <221> MOD\_RES  
 <222> (290)  
 <223> Glu or Gln

<400> 292  
 Met Gly His Thr Met Lys Trp Gly Xaa Leu Pro Pro Lys Arg Pro Cys  
           1                  5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys  
                   20                  25                  30

Ser Gly Xaa Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val  
           35                  40                  45

Met Leu Ser Cys Asp Tyr Xaa Thr Ser Thr Glu Glu Leu Thr Ser Leu  
           50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro  
           65                  70                  75                  80



Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	85	90	95
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Xaa	Ser	Asp	100	105	110
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Xaa	Leu	Lys	Gly	Ala	115	120	125
Tyr	Lys	Leu	Glu	His	Leu	Xaa	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	130	135	140
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile	145	150	155
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu	165	170	175
Tyr	Trp	Leu	Glu	Asn	Gly	Xaa	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Xaa	180	185	190
Ser	Gln	Asp	Pro	Glu	Thr	Lys	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp	195	200	205
Phe	Asn	Xaa	Thr	Ser	Asn	Xaa	Xaa	Xaa	Leu	Cys	Leu	Val	Lys	Tyr	Gly	210	215	220
Asp	Leu	Thr	Val	Ser	Gln	Xaa	Phe	Tyr	Trp	Gln	Glu	Ser	Lys	Pro	Thr	225	230	235
Pro	Ser	Ala	Asn	Gln	His	Leu	Thr	Trp	Thr	Ile	Ile	Ile	Pro	Val	Ser	245	250	255
Ala	Phe	Gly	Ile	Ser	Val	Ile	Ile	Ala	Val	Ile	Leu	Thr	Cys	Leu	Thr	260	265	270
Cys	Arg	Asn	Ala	Ala	Ile	Arg	Arg	Gln	Arg	Arg	Glu	Asn	Glu	Val	Xaa	275	280	285
Met	Xaa	Ser	Cys	Ser	Gln	Ser	Pro									290	295	

<210> 293  
 <211> 296  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 293  

Met	Gly	His	Thr	Met	Lys	Trp	Gly	Thr	Leu	Pro	Pro	Lys	Arg	Pro	Cys	1	5	10	15
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	---	---	----	----

  
 Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys

20					25					30						
Ser	Gly	Ile	Thr	Pro	Lys	Ser	Val	Thr	Lys	Arg	Val	Lys	Glu	Thr	Val	
35					40					45						
Met	Leu	Ser	Cys	Asp	Tyr	Asn	Thr	Ser	Thr	Glu	Glu	Leu	Thr	Ser	Leu	
50					55					60						
Arg	Ile	Tyr	Trp	Gln	Lys	Asp	Ser	Lys	Met	Val	Leu	Ala	Ile	Leu	Pro	
65					70					75					80	
Gly	Lys	Val	Gln	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Ile	Thr	Asp	
85					90					95						
Met	Asn	Asp	Asn	Pro	Arg	Ile	Val	Ile	Leu	Ala	Leu	Arg	Leu	Ser	Asp	
100					105					110						
Ser	Gly	Thr	Tyr	Thr	Cys	Val	Ile	Gln	Lys	Pro	Asp	Leu	Lys	Gly	Ala	
115					120					125						
Tyr	Lys	Leu	Glu	His	Leu	Thr	Ser	Val	Arg	Leu	Met	Ile	Arg	Ala	Asp	
130					135					140						
Phe	Pro	Val	Pro	Thr	Ile	Asn	Asp	Leu	Gly	Asn	Pro	Ser	Pro	Asn	Ile	
145					150					155					160	
Arg	Arg	Leu	Ile	Cys	Ser	Thr	Ser	Gly	Gly	Phe	Pro	Arg	Pro	His	Leu	
165					170					175						
Tyr	Trp	Leu	Glu	Asn	Gly	Lys	Glu	Leu	Asn	Ala	Thr	Asn	Thr	Thr	Leu	
180					185					190						
Ser	Gln	Asp	Pro	Glu	Thr	Lys	Leu	Tyr	Met	Ile	Ser	Ser	Glu	Leu	Asp	
195					200					205						
Phe	Asn	Met	Thr	Ser	Asn	His	Ser	Phe	Leu	Cys	Leu	Val	Lys	Tyr	Gly	
210					215					220						
Asp	Leu	Thr	Val	Ser	Gln	Thr	Phe	Tyr	Trp	Gln	Glu	Ser	Lys	Pro	Thr	
225					230					235					240	
Pro	Ser	Ala	Asn	Gln	His	Leu	Thr	Trp	Thr	Ile	Ile	Ile	Pro	Val	Ser	
245					250					255						
Ala	Phe	Gly	Ile	Ser	Val	Ile	Ile	Ala	Val	Ile	Leu	Thr	Cys	Leu	Thr	
260					265					270						
Cys	Arg	Asn	Ala	Ala	Ile	Arg	Arg	Gln	Arg	Arg	Glu	Asn	Glu	Val	Lys	
275					280					285						
Met	Glu	Ser	Cys	Ser	Gln	Ser	Pro									
290					295											

<210> 294

<211> 26

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 294

Asn Lys Asp Ser Lys Met Val Val Ala Ile Leu Pro Gly Lys Val Gln  
1 5 10 15

Val Phe Pro Glu Tyr Lys Asn Lys Thr Ile  
20 25

<210> 295

<211> 26

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 295

Gln Lys Asp Ala Lys Met Val Leu Ala Ile Leu Pro Gly Arg Val Gln  
1 5 10 15

Met Trp Pro Glu Tyr Lys Gln Arg Thr Ile  
20 25

<210> 296

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic FLAG tag

<400> 296

Asp Tyr Lys Asp Asp Asp Lys  
1 5

<210> 297

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Illustrative conserved peptide

<400> 297

Met Tyr Pro Pro Pro Tyr  
1 5

<210> 298  
<211> 14  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Illustrative  
non-dimerizing Ig-Fc domain

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Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro  
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<210> 299  
<211> 6  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Poly-His tag

<400> 299  
His His His His His His  
1 5

<210> 300  
<211> 4  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Illustrative  
factor Xa cleavage site

<400> 300  
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<210> 301  
<211> 14  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 301  
Pro Lys Ser Ser Asp Lys Thr His Thr Ser Pro Pro Ser Pro  
1 5 10

<210> 302  
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<212> DNA  
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<220>  
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<210> 303  
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<212> DNA  
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<220>  
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<212> DNA  
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<210> 305  
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<220>  
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<220>  
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<212> DNA  
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<220>  
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<210> 308  
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<220>  
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<210> 309  
<211> 63  
<212> DNA  
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<220>  
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ggatccactc atctagaaca atggtaccaa tacgaattcg gcggccgcag atctgtttaa 60  
acc 63

<210> 310  
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<220>  
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terminator sequence

<400> 310  
atcaaaatta ggaaga 16

<210> 311  
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<220>

<223> Description of Artificial Sequence: Illustrative  
silent variation oligonucleotide

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atgggacata cgatg

15

<210> 312

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Illustrative  
peptide

<400> 312

Leu Tyr Pro Pro Pro Pro Tyr

1

5